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## CISTULA

# ENTOMOLOGICA.

VOL. I.

WITH TEN PLATES.

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## CISTULA ENTOMOLOGICA,

SIVE

## INSECTORUM NOVORUM DIAGNOSES.

Descriptions of New Rhopalocera from the Collection of HERBERT DRUCE, Esq. By ARTHUR GARDINER BUTLER, F.L.S., F.Z.S., &c.

I am much indebted to Mr. Druce for the pleasure of describing the following very beautiful species. I shall figure them as soon as possible in my Lepidoptera Exotica.

## FAMILY NYMPHALIDÆ. Westwood.

SUB-FAMILY DANAINÆ, Bates.

GENUS DANAIS. Latreille.

1. Danais Vashti, sp. nov.

Alæ supra obscurissimæ, anticæ albo-maculatæ.

Frontuings jet black; a large patch on the disc divided by the first median branch, two conspicuous spots placed obliquely near the apex, three costal, two apical, and four submarginal points, all semi-transparent white.

Hindwings pitchy, darker at the apical margin and paler at the abdominal margin; six or seven most minute submarginal white points: body, thorax black whitespeckled, abdomen brown, paler at the sides: antennæ

Frontwings below, brownish towards the apex, otherwise as above.

Hindwings pale fulvous, the apical and costal areas clouded with brown; the nervures and internervular folds black; several very minute submarginal points, fringe white black varied; body, thorax black spotted with white, abdomen pale whitish brown, antennæ black: expands 4 inches, 4 lines.

Inhabits Old Calabar. Coll. Druce.

This handsome Danais belongs to the Danoeles group.

#### 2. Danais Ishma, sp. nov.

Alæ supra nigro fuscæ viridi-albo maculatæ et plagiatæ. Frontwings much produced; a discoidal streak resembling the human radius at the base, and a very deeply notched subquadrate patch at the apex of the cell; a broad uneven band, divided by the nervures into seven or eight spots crosses the wing obliquely, bounding the cell on two sides; a series of eleven submarginal points (the ninth and tenth geminate) enclose the wing, beginning just before the middle of the costal margin and terminating at the anal angle; several minute marginal points; all these markings are palæ green.

Hindwings, basal area to beyond the discoidal cell pale transparent green, separated into patches by broad blackish nervures; the apical area dark brown with two rows of submarginal white spots placed obliquely in couples; abdominal margin pale brown, streaked with grey brown; bodu, thorax black spotted with white, abdomen brown.

antennæ black.

Wings below nearly as above, but the submarginal spots larger: expands 3 inches, 8 lines.

Gilolo. Coll. Druce.

This species is also in the British Museum from Celebes, it comes near to *D. Sobrina* which it resembles in form and the pattern of the hindwings, the frontwings are however quite different.

#### SUB-FAMILY BRASSOLINÆ. Bates.

GENUS DASYOPHTHALMA. Westwood.

1. Dasyophthalma Vertebralis, sp. nov.

Alæ supra nigro-fuscæ albo-fasciatæ, subtus fuscæ

albæque, nigro-striatæ, ocellis permagnis.

Frontwings above dark brown with an oblique creamy discal band, beginning upon the inner margin just beyond the middle, and continuing to near the apex, the apical portion broken up into four subhastate spots, the two uppermost of which partially enclose two large oval black spots; a subcostal creamy spot near the apex separated into three parts by the nervures.

Hindwings dark brown, paler towards the abdominal margin, a broad creamy discal band tapering towards the apex, obscurely deutated on its inner, and sinuated on its

outer-margin; body brown, antennæ black.

Frontwings below pale brown banded and striated with black streaks, an irregular interrupted white disco-cellular fasciole and a white discal band corresponding to that of the upper surface and terminating in two large oval black

ocelli with white pupils and fulvous irides.

Hindwings white, the outer margin ashy and partially enclosing six squamose fulvous spots; three large ferruginous ocelli pupillated with white and with yellow and black irides placed in the form of a triangle just above the centre of the wing; the entire wing excepting a narrow space round each ocellus more or less streaked with black, basal area densely streaked: body brown, thorax varied with whitish at the sides, palpi with white medial line above and below, antennæ black; expands 4 inches, 4 lines.

Para. Coll. Kaden. in Coll. Druce.

Allied to *D. Creusa*, from which it may be at once distinguished by the broad creamy band of the posterior wings and the narrower band of the anterior wings.

#### GENUS CALIGO. Hübner.

Caligo Hemichroa, sp. nov.

3. Alæ supra fuscæ purpuræeque, puncto anticis apicali geminato albo maculaque posticis suabnali fulva; subtus fuscæ, brunneo aureo nigroque variegatæ.

Frontwings above with the basal area reddish brown, the apical area deep purple, the costa and outer margin pale

brown; a bifid white costal spot near the apex.

Hindwings basal area brown covered with long hairs, apical area deep purple, the outer margin pale brown; abdominal margin greyish brown with a small subanal fulvous spot.

Wings below nearly as in C. Automedon but longer, more conspicuously coloured, and with both wings crossed near the base by a straight dull golden band: expands

4 inches, 2 lines.

Inhabits Minas Geraes. Coll. Druce.

This beautiful species comes nearest to C. Automedon, it is however very distinct from that species.

#### SUB-FAMILY MORPHINÆ.

Includes the genera Morpho, Clerome, Drusilla, Discophora, Amathusia, Bia, and comes between the Brassolinae and Nymphalinæ.

#### GENUS MORPHO. Fabricius.

Morpho Luna, sp. nov.

Alæ supra sericeo-albæ virescentes, fusco maculatæ et fasciolatæ; subtus ocellatæ.

Frontwings above greenish white with disco-cellular waved streak, costal nervure and apex brown, the apex interrupted by three ill-defined whitish spots, the markings of the under surface visible through the wings.

Hindwings with eight large submarginal ovate dark brown spots, that next to the anal angle, however, notched, and in the form of a C; the nervures terminated with dark brown; markings of the under surface distinctly visible; body white, thorax brownish, antenne black.

Frontuings below with costal nervures, a transverse waved and tapering medio-discoidal brown band, and a second similarly waved but white centred disco-cellular band; three distinct black ocelli pupillated with white but without irides, the uppermost remote from the others and very small.

Hindwings with five black discal ocelli pupillated with white and with yellow irides, the first, third, and fourth, large; two interrupted black sub-anal lines: body white, the centre of the thorax ochraceous; antennæ black: expands 6 inches, 8 lines.

Mexico. Coll. Druce.

This is the largest white Morpho that I have seen; it is allied to M. Laertes but quite distinct.

## SUB-FAMILY NYMPHALINÆ. Bates.

GENUS CHARAXES. Ochsenheimer.

1. Charaxes Druceanus, sp. nov.

Affinis *C. Eudoxo*, vix differt supra a *C. Cynthia*, alæ subtus rufo-ferrugineæ argentatæ, nigro fulvoque fasciatæ et strigatæ.

Wings above almost exactly as in C. Cynthia.

Frontwings below with costa silvery, the basal area enclosing four discoidal and four discal blackish spots encircled with silver, terminated by a broad oblique silver band traversing the wing from the inner margin, and terminating in a wide fork upon the costa; anal angle varied with fulvous; a decreasing series of seven or eight semi-connected submarginal black spots bounded outwardly by a plumbeous line.

Hindwings, base streaked with silver bands enclosing

black lines and bounded by a broad silver band which tapers from the costa to the anal angle; outer margin fulvous with exceedingly slender silvery marginal line; an irregular but connected series of six rusty spots surrounded with silver and enclosing externally short black strioles; a plumbeous spot encircled with black at the anal angle; body rusty, palpi with white lateral line; antennæ black: expands 3 inches, 3 lines.

Old Calabar. Coll. Kaden. in Coll. Druce. Belongs to the *Eudoxus* group of *Charaxes*.

## 2. Charaxes Zephyrus sp. nov.

Simillimus *C. Echoni* at pallidior, fascia media albida latiore magis irregulari; maculis discalibus alarum posticarum subtus multo pallidioribus et minoribus.

Frontwings above almost as in C. Echo but paler, the lower spots of the creamy central band very much wider,

the fourth spot separated into two at the fork.

Hindwings, the band more irregular and tapering nearly to the anal angle, and the marginal spots much larger; body brownish olivaceous, antennæ black.

Frontwings below paler than in C. Echo, the lower spots of the creamy band as above; the subanal spots smaller

and paler.

Hindwings, the central white streak broken up, the discal series of lunate spots very narrow, the lunules ochreous, not deep reddish as in C. Echo: body whitish brown, antennæ black: expands 2 inches, 10 lines.

Locality unknown. Coll. Kaden. in Coll. Druce.

Belong's to the Lampedo group of Charaxes and is closely allied to C. Echo.

#### 3. Charaxes Alladinis sp. nov.

3. Alæ supra nigrescentes, nitidissimæ, cæruleo micantes, violaceo-albido maculatæ, basi\_subferrugineæ: alæ subtus

velut in maribus nonnullis C. Ephyræ.

Frontwings above blackish, beautifully shot with blue, the base somewhat ferruginous; a white subcostal spot towards the end of the discoidal cell; an angulated series of five similar spots, all whitish violaceous; the outer margin rather pale, especially at the anal angle.

Hindwings blackish with a beautiful blue shot terminating in a shining macular disco-submarginal band which becomes whitish towards the costa: a series of eight submarginal white points and an interrupted marginal band, orange at the apical, but greenish at the anal margin; the extreme margin black: body blackish, antennæ black.

Wings below as in some Ashanti males of C. Ephyra:

expands 3 inches, 3 lines.

Locality unknown. Coll. Kaden. in Coll. Druce.

This beautiful species though evidently belonging to the *Ephyra* group, is a very distinct species. I hope shortly to have an opportunity of figuring *C. Pelias* of Cramer, also in the Kaden collection, and which I have been unjustly accused of describing and figuring under the name of *C. Saturnus*.

#### GENUS ADOLIAS. Boisdural. Adolias Zichri, sp. nov.

Alæ supra nigro-fuscæ posticæ fascia cupreo-caerulea

marginali; subtus fuscie nigro maculato-fasciatæ.

g. Wings above dark brown; the outer margin of the anterior wings bronzy, the band tapering from the anal angle to the apex, also two patches of the same colour near the costal margin and two spots near the base of the outer marginal band: the outer margin of the posterior wings of two colours, the inner and apical portion bronzy, showing three black spots, the outer portion except the apex greenish blue.

Wings below pale brown with the usual black characters at the base and two discal rows of black subhastate spots arranged nearly as in A. Parta Moore: body dark brown above, pale brown below; antennæ black above, brownish

ferruginous below: expands. 2 inches, 7 lines.

¿. Sarawak (Love). Colls. Druce and B. M. Comes near to A. Phemius and allies.

#### GENUS SALAMIS. Boisdural.

## Salamis Amarantha, sp. nov.

Alæ supra cæruleæ, margine externo fusco nigro ma-

culato; subtus fuscæ nigro-ocellatæ et subfasciatæ.

3. Frontwings above soft purplish blue, the extreme outer margin brown; two double lines crossing the discoidal cell, a discal zigzag streak, six ocellated submarginal spots, two submarginal waved lines and the base of the ciliae black; two subapical spots white.

Hindwings basal area soft purplish blue, external area brown with two submarginal black bands; a distinct black ocellus with white pupil and yellow iris near the anal angle.

Wings below pale rosy brown, with zigzag lines and three dark bands at the base; a dark but ill-defined band (bordered inwardly upon the hindwings by a narrow pale line) running from the apex of the front to the anal angle of the hindwings; frontwinys with six black ocelli with white pupils and yellow irides, the two central ones very minute; hindwings with five, the third and fourth punctiform: a small subcostal white spot just within the dark central band; the central external area dark; body brown.

Q. Frontwings above with external area brown, otherwise it only differs from the male in its slightly superior size, and paler colouring: expands 3. 3 inches, 6 lines; 3 inches. 6 lines.

Inhabits Old Calabar. Coll. Druce. Form of S. Cytora to which it is allied.

> GENUS JUNONIA. Junonia Zipha, sp. nov.

Alæ supra nigro-fuscæ, zona discali fulva; anticæ punctis tribus submarginalibus nigris : posticæ ocellis septem rufo-fulvis nigro-cinctis pupillatisque; margine externo pallido, lineis duabus submarginalibus nigris: alæ subtus pallide fuscæ, fasciolis obscurioribus, linea media nigrescente.

Wings above dark brown, the base sprinkled with fulvous scales, a fulvous band (angulated in the front wings) runs from the end of the discoidal cell of the front to the anal angle of the hind wings; upon the band and near the anal margin of the front wings are three blackish points, and adjoining it in the hind wings are seven reddish ocelli with black centres and zones, the seventh geminate, the first most minute, the sixth and seventh with pale blue

Wings below pale brown with darker bands and a central dark line like the midrib of a leaf and answering to the inner edge of the fulvous band of the upper surface:

expands 2 inches.

pupils; body dark brown.

Inhabits Old Calabar. Coll. Druce. Comes into the Terea group of Junonia.

> GENUS HETEROCHROA. Boild. Heterochroa Mephistopheles, sp. nov.

Alæ supra nigro-fuscæ, fasciis submarginalibus nigris; anticæ fascia irregulari aurantiaca; posticæ macula magna media nivea, alteraque costali parva: corpus nigrum: alæ subtus ferrugineæ, fasciolis discoideis alternatim violaceis

ferrugineisque nigro marginatis; anticæ fascia velut supra flava maculis quatuor submarginalibus aliisque marginalibus flavidis; maculis duabus subapicalibus niveis fusco cinctis: posticæ macula superna media nivea, altera minore costali, linea interrupta discali fusca; maculis sex vix lunatis submarginalibus violaceo-albis; margine nigrescente ciliis albis: corpus cinerascens.

Wings above blackish, with black submarginal bands;

Frontwings with an oblique irregular orange band.

Hindwings with a large snowy spot and a second smaller costal one: body and antennæ black.

Wings below fulvous, the basal area crossed alternately by violet and ferruginous bands separated by black lines

Frontwings with oblique band as above but paler, four yellow submarginal spots uniting this band with the costa and several ill-defined marginal spots; two snowy subapical spots margined with brown.

Hindwings with white spots as above, an interrupted brown discal band, six somewhat lunate whitish violaceous submarginal spots; the margin blackish with the fringe white; the body ashy: expands 2 inches, 2 lines.

Bogota. Coll. Kaden, in Coll. Druce.

This species comes into the *Irmina* group and is nearly allied to several described species; it seems however to be distinct from them all.

#### GENUS APATURA. Fabricius.

## 1. Apatura Lucasii. Westwood.

Q. Alæ supra fuscæ, fascia media fulva, posticarum introrsum albicante, maculisque tribus anticis subapicalibus albis; lineis nonnullis discoideis fasciisque duabus lunularibus submarginalibus nigris; margine anali posticarum fulvescente linea subanali cærulescente fasciolaque virescente; corpus nigrescens, antennis nigris.

Alæ subtus fere velut in mare linea autem posticarum

media subrecta: exp. alar. unc. 2, lin. 5.

Habitat —? Coll. Kaden. in Coll. Druce.

#### 2. Apatura Laurentia. Godart.

Q. Alæ supra fuscæ, fascia media fulva, posticarum dimidio anali fuscæscente punctumque nigrum extrorsum exhibente, introrsum apud costam albicante, maculisque tribus anticis subapicalibus magnis albis; lineis nonnullis discoideis fasciisque duabus maculato-lunularibus submarginalibus nigris; margine anali posticarum fulvescente linea subanali cærulescente fasciolaque virescente; corpus nigro-fuscum antennis nigris.

Alæ subtus fere velut in mare striolis autem anticarum aream basalem limitante augustioribus, lineaque posticarum media subrecta; alæ posticæ quoque magis rufescentes: exp. alar. unc. 2. lin. 8.

Habitat —? Coll. Kaden. in Coll. Druce.

I hope some day to have an opportunity of figuring these very interesting females, the males of which are in almost every collection of exotic lepidoptera. I find from an examination of the sexes of several other species in the Kaden Collection that Hübner has figured the female of his  $A.\ Druryi$  under the name of  $A.\ Laura\ \mathfrak{P}$ ; the true female of the latter being in the Collection of the British Museum from Tunantins, the male from Ega.

#### GENUS TERINOS. Boisd. Terinos Fulminans, sp. nov.

Alæ supra cupreo-fuscæ violaceo tinctæ; anticæ margine costali et externo, posticæ area apicali, fulvis: alæ subtus

velut in T. Teuthra.

Wings above brown, the entire centre of the frontwings and the apex of the hindwings coppery brown as in T. Atlita of Fabricius ; a band running along the costa of the frontwings, but curving away just before reaching the apex, and edging the outer margin and the entire apical area of the hindwings, fulvous. Near the outer margin of the hindwings are two nearly invisible waved brown lines; all the wines are shot with a delicate rosy violet.

Wings below as in T. Teuthras and Atlita: expands 3

inches, 3 lines.

Sarawak. (Lowe.) Coll. Druce.

GENUS CIRROCHROA. Doubleday. Cirrochroa Satellita, sp. nov.

Q. Alæ supra fuscæ, fascia media subrecta lumulisque posticis submarginalibus fulvis, maculis duabus inaequalibus rotundatis posticis subanalibus nigris; subtus fulvis, fascia media subrecta fulvo argentea, serieque duplici lumularum ejusdem coloris submarginalium: posticæ punctis quinque nigris conspicuis.

<sup>\*</sup> A species which I recently determined from description whilst preparing a Catalogue for the British Museum.

Wings above brown, reddish at base, a broad nearly straight fulvous band upon which, in the hindwings, are two subanal round spots, that nearest the abdominal margin being much the largest; hindwings with two rows of fulvous lumules on outer margin: body brown, antennæ black.

Wings below fulvous, a nearly straight central band, yellow in the front and silvery in the hindwings and tapering to the abdominal margin; beyond the central band in the hindwings are five black spots, the first, fourth, and fifth largest, the third smallest; two submarginal series of silvery and yellow lunules and a white oblique subapical stria in the frontwings, body pale fulvous: expands 2 inches, 6 lines.

Inhabits Hong Kong. Coll. Druce.

This interesting *Cirrochroa* is intermediate in character between *C. Clagia* and *C. Orissa*: it is abundantly distinct from both.

#### GENUS TIMETES. Boisd.

## Timetes Funestis, sp. nov.

Alæ supra fuscæ, obscure strigatæ, anticæ punctis tribus subapicalibus, posticæ macula fasciolari mediocostali albis, fascia discali nigrescente: subtus pallide fuscæ obscure strigatæ, area apicali paulum albicante,

punctis subapicalibus albis, submarginalibus nigris.

Wings falcate, frontwings terminating in a sharp point, hindwings tailed as in C. Tutellina; above smoky brown; frontwings with two basal discoidal striæ; a continuous line just beyond, then a discocellular stria and two irregularly waved central lines; a broad ill-defined band (limited near the apex by three white spots); all these bands are blackish; the apex and outer margin dark brown: hindwings, a basal line, two central slightly waved lines, a broad discal band, and two submarginal wavy lines all dark brown or blackish, the wing between the two central lines white at the costa; two or three subanal black spots.

Wings below pale greyish brown whiter towards the apex, the basal area crossed by two deeply dentated lines and one or two small basal lines; disc crossed by a zigzag pale line and interrupted brown streak, beyond which is a series of black points and in the frontwings several white subapical spots; two waved submarginal lines, the outer one dark: expands 2 inches. 3 lines.

Inhabits Bolivia. Coll. Drucc.

## FAMILY ERYCINIDÆ.

GENUS MESOSEMIA. Hübner.

1. Mesosemia Jeziela, sp. nov.

¿. Alæ supra basi nigræ fascia media caerulea; anticæ fasciola discali, posticæ area apicali nivea; area apicali anticarum apiceque posticarum nigerrimis: anticæ ocello discoideo, posticæ striolis interruptis basalibus lineaque submarginali nigris: corpus nigrum: subtus fuscæ, area basali obscurius strigatæ; anticæ ocello velut supra nigro tripupillato, fasciaque postmedia nivea regulariter arcuata; posticæ area apicali nivea, linea submarginali, alteraque marginali fuscis: corpus fuscum.

Wings above black at the base, a central broad blue band enclosing, in the frontwings, a black discoidal occllus and a curved discal white band, and interrupted in the hindwings by a series of broken black lines; frontwings with the apical area black; hindwings with the apical area white, with apex and a slender submarginal line black.

Wings below brown, the basal area streaked with dark brown; frontwings with black tripupillated discoidal ocellus, the white band of the upper surface continued across the wing; hindwings with white apical area; a submarginal and a marginal line brown; body brown: expands 1 inch. 7 lines.

Bogota, Coll. Druce.

Belongs to the Philocles group of Mesosemia.

#### 2. Mesosemia Isshia, sp. nov.

Q. Alæ supra fuscæ, posticæ et area basali anticarum obscurius strigatæ, anticæ ocello magno nigro tripupillato; fascia postmedia regulariter arcuata alba, posticæ area externa alba, striis late separatis, postremo apud marginem maculari: corpus fuscum: alæ subtus velut supra at pallidiores.

Wings above brown; the hindwings and the basal area of the frontwings streaked with black brown; the striæ of the hindwings becoming wider apart towards the outer margin, the last of all being macular: frontwings with a large black tripupillated discoidal ocellus and a narrow curved discal white band; hindwings with the external area white; body brown; wings below marked as above but paler: expands 1 inch, 5 lines.

Bogota. Coll. Druce.

Scarcely sufficiently like the preceding to be its female; the strice being differently arranged.

3. Mesosemia Thumetina, sp. nov.

Affinis M. Thumeto minor autem et fascia alba augustiore striisque basalibus magis regularibus et latius separatis.

Wings above dark brown with eight or nine blackish basal lines, the fourth and fifth from the central white band united and enclosing (in the frontwing) a large tripupillated ocellus; central band white, narrower than in M. Thymetus; body brown.

Wings below marked as above, but paler: expands 1

inch, 6½ lines.

Bogota. ♂. Q. Coll. Druce.

GENUS EMESIS. Fabricius.

Emesis Irata, sp. nov.

Alæ supra rufo-aurantiacæ; anticæ striola basali, costa areaque apicali nigerrimis; fasciola obliqua discoidea, altera recta disco-costali; puncto maculaque pone eam; striolisque tribus longitudinalibus (subapicali remoto) submarginalibus: posticæ apice nigro: corpus nigrum collo albo, abdomine flavo septem-fasciolato: antennis nigris : alæ subtus pallidiores.

Wings above reddish orange; frontwings with a short black basal streak, the apical and costal area forming an elongate triangular black patch and enclosing seven yellow spots, the two innermost transverse striolate, the three outermost longitudinal: hindwings with the apex black: body black, the collar white, the abdomen banded with yellow, wings below paler than above but similarly marked: expands 1 inch, 1 line.

Bogota. Coll. Druce. Nearly allied to several species.

## FAMILY PAPILIONIDÆ.

## SUB-FAMILY PAPILIONINÆ. Bates.

GENUS PAPILIO. Fabricius. Papilio Luctuosa, sp. nov.

Alæ supra fuscæ, anticæ area apicali pallidiore; plaga interno-discali olivaceo-viridi, maculaque a nervulo secundo mediano divisa albo; posticæ nigrescentes, margine abdominali sericeo-albo; macula media elongata trifida coccinea: corpus nigrescens: alæ subtus fuscæ pallidiores anticæ macula superna alba; posticæ maculis quinque discalibus

roseo-rufis ovalibus : corpus nigrescens.

₹. Wings above brown: frontwings with the apical area paler; a large subtriangular patch upon the inner margin and terminating above in a nearly circular white spot divided by the second median branch: hindwings blackish, the abdominal margin silky white, a central elongate trifid scarlet spot: body blackish.

Wings below paler brown; frontwings with the white spot of the upper surface; hindwings with five pale rosy oval spots on the disc; body blackish: expands 3 inches, 4 lines.

Coll. Druce.

Allied to P. Proteus, but very different.

#### SUB-FAMILY PIERINÆ. Bates.

GENUS EUTERPE. Swainson.

Euterne Latona, sp. nov.

d. Affinissima E. Leucodrosymæ; alæ supra fuscæ area interno-basali anticarum et area tota basali posticarum albido cinereis, anticæ plaga obliqua discoidea squamosa coccinea, maculaque squamosa ejusdem coloris inter nervulos secundum tertiumque medianos; corpus cinereo-albidum, capite nigrescente: alæ subtus pallidiores venis nigris; anticæ plagis supernis coccineis; vena costali alba; posticæ punctis duobus basalibus coccineis; corpus, thorace nigrofusco, abdomine albo.

Nearly allied to E. Leucodrosyme but with the frontwings comparatively more elongate, the ground-colour deeper and browner, the grey colouring at the base more extended, the red band broken up into two oblique spots; expands 2 inches, 10 lines.

Inhabits —? Coll. Kaden, in Coll. Druce.

GENUS PIERIS. Schranck. Pieris Trimenia, sp. nov.

Pieris Agathina, Var. B, Trimen. in Rhop. Afr. Austr., p. 29, pl. II., fig. 2 (1862—1866).

Alæ supra coloribus Callidryadis Gorgophones &.: subtus

anticæ albæ apice, flavo; costa nigro-squamosa; venis nigro-acuminatis; posticae flavae, maculis venas terminantibus nigris.

Wings above coloured as in Callydrias Gorgophone, 3.

Mr. Trimen describes as follows:-

" Forewing white with the usual hind-marginal spots. Hindwing, bright sulphur yellow; seven marginal spots, the additional one being at extremity of first sub-subcostal nervule; underside, yellow colouring paler and brighter than in ordinary specimens. Forewing, ground colour white, no orange red at base, but only a slight ochrey-yellow tinge. Hindwing, base and costa as far as middle narrowly edged with orange vellow."

3. Port Natal. Coll. Druce.

This species is also in the Collection of the British Museum, received from Mr. Trimen. There is no doubt of its being distinct from P. Agathina; indeed, I believe that is now Mr. Trimen's opinion.

#### GENUS EUCHLOË. Hübner.

## Euchloe Jalone, sp. nov.

Alæ supra albæ; anticæ apice nigro, margine apicali cinerascente, plagaque subapicali a venis in partes quinque divisa, purpurea nitida; puncto disco-cellulari nigro; posticæ venis nigricantibus; corpus nigrum, thorace pilis sericeo-cinereis, capite flavescente: alæ anticæ subtus albæ puncto superno nigro, apice flavescente; posticæ ochraceoalbidæ puncto disco-cellulari nigro fasciaque de costæ medio oblique currente fusco; costa basali aurantiaca: corpus album.

Allied to E. Phlegyas. Wings above white with the base slightly greyish, the apex of the frontwings black with the margin greyish, and enclosing a purple patch divided by the black nervures into five unequal parts; a disco-cellular black point: hindwings with the nervures black, a disco-cellular spot appearing through the wing; body black with silky grey hairs; the head yellowish.

Frontwings below white with the apex yellowish, black disco-cellular spot as above: hindwings ochrey, the base of costa orange, a black disco-cellular spot and oblique brown band beginning on costa and ending in a spot between second and third median nervules; body white: expands 2 inches, 5 lines.

Inhabits White Nile. Coll. Druce.

## 2. Euchloe Jobina, sp. nov.

Alæ supra albæ anticæ apice late nigro maculis subquatuor decrescentibus mari purpureis, feminae albis; posticæ venis nigro acuminatis; corpus nigrescens, capite tlavescente antennis nigris.

Alæ anticæ maris subtus albæ apice ochreo, puncto disco-cellulari nigro: posticæ ochraceæ fusco strigosæ; puncto disco-cellulari nigro-fusco, striaque interrupta obliqua fusca; costa basali aurantiaca: corpus albidum: alæ anticæ feminæ albæ apice brunneo introrsum fusco limitato et maculas quatuor ochraceas includente; puncto disco-cellulari, duobusque inter venas medianas oblique positis, nigris; posticæ brunneæ fusco-strigosæ; puncto albido disco-cellulari punctoque adjuncto fusco, fascia pone eum fusca; costa basali aurantiaca; corpus albidum.

Wings above white, the frontwings with the apex black enclosing four spots, purplish-red in the male and white in the female; the base greyish; hindwings with the nervures tipped with black; a black spot in the frontwings of the female below the middle of the first median branch; body

blackish with vellowish head; antennæ black.

Frontwings below white in the male with ochreous apex, in the female with apex fawn-coloured, enclosing four pale spots and margined within by a dark brown band; two black discal spots placed obliquely towards the inner margin below the first and second median branches; a black disco-cellular spot.

Hindwings of male ochreous striated with brown, of female fawn-coloured; a blackish disco-cellular spot with a whitish spot united to it, a brown band beyond it strongly defined in the female; body white: expands 2 inches.

Natal. Coll. Druce.

#### HELIOCHROMA, Gen. nov.

Forma alarum velut in *Tachyride* (*Ncombo*); venis anticarum fere velut in *Eronia*, vena solum una ante cellæ discoidalis finem emisssa; venis posticarum velut in *Eronia Idotea*; antennis velut in *E. Leda*: capite permagno.

## Helioehroma Idiotica. sp. nov.

 Alæ supra aureo-flavæ apice anticarum tenuissime fusco; corpus nigrescens pilis sericeo-cinereis; palpis flavis, antennis rufis.

Alæ subtus clariores, anticæ area interna albicante; posticæ maculis duabus costalibus unaque interna apud venæ medianae medium: corpus flavum.

Wings above golden yellow, the apex of the frontwings edged with brown; the body blackish with silky grey hairs, the palpi yellow, antennæ rosy red.

Wings below brighter, the frontwings with the internal

area whitish; hindwings with two costal and one internal brown spot, the latter placed at the base of the first median branch, body yellow: expands 2 inches, 6 lines.

Inhabits —? Coll. Kaden. in Coll. Druce.

#### GENUS CALLIDRYAS. Boisd.

Callidryas Minuscula, sp. nov.

Alæ supra aureo-flavæ, punctis marginalibus nigris: corpus thorace nigrescente, abdomine albicante.

Alæ subtus pallidiores brunneo striolatæ, punctis mar-

ginalibus nigris, corpus flavescens.

Allied to C. Argante; wings above with ground-colour of C. Argante 2. and marginal black spots; body with blackish thorax and whitish abdomen.

Wings below paler and striated nearly as in C. Argante but with the striations paler and more diffused, body

yellowish: expands 1 inch, 8 lines.

Inhabits Havannah. Coll. Kaden in Coll. Druce. This may perhaps be a dwarf race of *C. Argante*.

# GENUS CATAGRAMMA. Boisd. Catagramma Latona, sp. nov.

Q. Alæ anticæ supra simillimæ C. Soranæ Q., plaga autem basali rufa multo latiore, striolaque apicali albida, haud fulva: posticæ nigræ basi paululum refescentes, plaga permagna media caerulea nitida; ciliis albis; corpus nigrofuscum.

Alæ subtus fere velut in *C. Soranu*, anticæ autem plaga basali latiore; posticæ lineis flavis latioribus et profundius

dentatis: corpus flavum nigro-strigatum.

Frontwings above very like C. Sorana 2, but with the basal red patch much wider, the apical streak whitish, not yellow: hindwings black, slightly reddish at the base, with a large central shining blue patch, fringe white, body dark brown.

Wings below almost as in *C. Sorana*, but the frontwings with wider basal red patch, the hindwings with the yellow lines more deeply toothed, body yellow, black streaked: expands 9 inches, 6 lines.

Inhabits —? Coll. Kaden, in Coll. Druce.

This very beautiful species, though very like *C. Sorana* on the under surface, is quite different above. As most of the specimens of *C. Sorana* are females, it cannot belong to that species.

Descriptions of Exotic Lepidoptera from the Collection of HERBERT DRUCE, Esq. By ARTHUR GARDINER BUTLER, F.L.S., F.Z.S., &c.

The species described in the present paper are chiefly from the Kaden Collection now in the possession of Mr. Druce. Very many of the *Satyrinæ* in this collection are, I regret to say, without localities, which, from a scientific point of view, considerably lessens their value. As, however, it is my intention to figure all the species that I describe, I hope that ere long this evil may be remedied.

## FAMILY NYMPHALIDÆ. Westwood.

#### SUB-FAMILY SATYRINÆ. Bates.

GENUS TAYGETIS. Hubner.

1. Taygetis Xantippe, sp. nov.

¿. Affinis T. Ypthimæ sed major: alæ supra fusææ, antiææ subtus pallidiores striolis minutis fuscis variegatæ; marginæ externo, fascia discali et fasciala discoidea irregularibus, late fuscis; punctis quatuor apud marginem apicalem ocellaribus albipunctatis fuscis: posticæ nigro-cinerææ fusco striolatæ ochreo variegatæ; lineis duabus mediis undatis parallelis, lineaque submarginali irregularitær dentata, fuscis; cella area discali apiceque partim ochraceis; ocellis quinque increscentibus albo-pupillatis et brunneo-cinctis, nigris: corpus fuscum: exp. alar. unc. 2, lin. 11.

Allied to T. Ypthima but larger; wings above brown, frontwings below paler, varied with minute paler strioles; the outer margin, an irregular discal band and discoidal streak all broadly brown; four ocelloid white-pupilled brown points near the apical margin: hindwings blackish grey striated with brown and varied with ochreous; two parallel central waved lines, and an irregularly dentated submarginal line, brown; the cell, disc and apex partly ochraceous; five increasing white-pupilled and brown-zoned black ocelli: body brown: expanse of wings, 2 inches, 11 lines.

Brazil. Coll. Kaden. in Coll. Druce, and B. M.

I have given a brief description of this species at page 11 of my forthcoming Catalogue of Fabrician *Rhopalocera*; it has hitherto stood in collections under the name of *T. Chelys* of Fabricians; *P. Chelys*, however, proves to be a species of *Gnophodes*.

## 2. Taygetis Ophelia, sp. nov.

Alæ supra fuscæ ciliis ochraceis; margine externo, venis et plaga anticis disco-cellulari nigrescentibus; corpus fuscum.

Alæ anticæ subtus fusco cineræ nigro irroratæ; regionibus disco-cellulari, discali et apicali albicantibus; fasciola irregulariter lunata discoidea fasci que discali irregulariter deliculata late fuscis; fascia externo anali aream discalem albidam limitante, nigra; ocellis tribus submarginalibus fuscis albo-pupillatis: posticæ fusco-ochraceæ nigro-roratæ, fascia media arcuata dentata obscuriore a serie macularum albidarum extrorsum limitata; ocellis quinque discalibus indistinctis, (primo et secundo minutissimis) nigris, aliis majoribus ochreis punctisque tribus infra eos quasi ejectis minutissimis migris; margine externo introrsum albido crenulato: corpus ochreo-fuscum: exp. alar. unc. 3, lin. 2.

Wings above brown with ochraceous fringe; outer margin, veins and disco-cellular patch in the frontwings blackish:

body brown.

Frontwings below grey-brown speckled with black; discocellular, discal and apical regions whitish; an irregularly lunated discoidal streak and irregularly dentated discal band, broadly brown; an external anal black band limiting the whitish discal area; three white-pupilled submarginal brown ocelli: hindwings brownish-ochraceous speckled with black; a central arched dentated darker band bordered outwardly by a row of whitish spots; five indistinct discal ocelli (the first and second most minute) black, the others larger and ochreous, below them, as if thrown out, three very minute black points; the outer margin crenulated within with whitish: body ochre-brown: expanse of wings, 3 inches, 2 lines.

Inhabits —? Coll. Kaden, in Coll. Druce.

This delicately-tinted *Taygetis* is allied to the preceding species, its frontwings are formed somewhat as in *T. Mermeria*, but the costa has a more sudden upward curve at the apex than in that species.

#### 3. Taygetis Levetra, sp. nov.

¿. Alæ supra fuscæ, fascia media lata obscuriore: corpus fuscum: alæ subtus fundo pallidiore; anticæ lineis duabus mediis nigro-fuscis; area disco-cellulari triangulariter picea a linea externa media limitata, hac extrorsum a stria diffuse alba marginata, pone quam areola albido-squamosa; ocellis quinque discalibus, secundo et quinto parvis nigris, aliis fuscis, omnibus albo-pupillatis et flavo-cinctis: posticæ linea subbasali picea; fascia lata media triangulari picea a cella discoidea paululum interrupta et extrorsum albo marginata; area discali albido squamosa; ocellis quatuor distinctis increscentibus, primo et postremo nigris, intermediis subfuscis, omnibus albo-pupillatis et flavo-cinetis: corpus cinero-fuscum: exp. alar. unc. 2, lin. 10.

Wings above brown, a broad central darker band: body

brown.

Wings below with paler ground colour; frontwings with two central black-brown lines; the disco-cellular area triangularly pitchy, bounded by the outer central line, the latter bordered outwardly by a diffused white streak beyond which is a narrow white scaled area; five discal ocelli, the second and fifth small and black, the rest black, all white-pupilled, and with yellow irides: hindwings with a nearly basal pitchy line; a broad central triangular pitchy band, interrupted a little by the discoidal cell, and margined outwardly with white; the discal area dusted with whitish; four distinct increasing ocelli, the first and last black, the intermediate ones brownish, all white-pupilled, and with yellow irides: body ashy-brown: expanse of wings 2 inches, 10 lines.

Inhabits —? Coll. Kaden. in Coll. Druce.

T. Lenetra is quite different to any Tayyetis yet described. It will come near the Cleopatra group.

#### GENUS EUPTYCHIA. Hubner.

## 1. Euptychia Oreba, sp. nov.

¿. Alæ supra fuscæ, corpus fuscum: alæ subtus multo pallidiores cinereo-atomatæ; lineis omnibus fere velut in E. Nebulosa sed multo tenuioribus: anticæ ocellis quinque indistinctis, primo, secundo et quinto nigrescentibus, aliis ochraceis; omnibus albo-pupillatis et flavido-cinctis: posticæ ocellis septem, duobus ad angulum ani valde

indistinctis, primo, secundo et quinto nigris flavo-cinctis. tertio et quarto ochraceis, omnibus albopupillatis: exp.

alar. unc. 2, lin. 2.

Wings above brown, body brown: wings below much paler grey-speckled; all the lines nearly as in E. Nebulosa, but much more slender: frontwings with five indistinct ocelli. the first, second and fifth blackish, the others ochraceous, all white pupilled, and surrounded with yellowish; hindwings with seven ocelli, the two at the anal angle very indistinct, the first, second and fifth black, with vellow irides, the third and fourth ochraceous, all white-pupilled: expanse of wings, 2 inches, 2 lines.

Inhabits —? Coll. Kaden, in Coll. Druce.

Allied to E. Nebulosa, but much larger, with different ocellations and narrower lines on the under-surface of the wings.

## 2. Euptychia Jaresia, sp. nov.

Q. Affinis E. Saturno: alæs upra fuscæ; subtus paululum pallidiores; anticæ lineis velut in E. Saturno, disco autem multo obscuriore; posticae lineis duabus mediis, interiore subrecta, exteriore angulariter arcuata; fascia pone eam nivea, in medio latissima; area externa fusca; ocellis lineis-

que velut in E. Saturno: exp. alar. unc. 1, lin. 10.

Allied to E. Saturnus: wings above brown: below slightly paler; frontwings with lines as in E. Saturnus, but the disc much darker; hindwings with two central lines, the inner one nearly straight, the outer one angularly arched; a snowy-white band beyond it, widest in the middle: the outer area brown with ocelli and lines as in E. Saturnus: expanse of wings 1 inch, 10 lines.

Inhabits — ? Coll. Kaden, in Coll. Druce.

This species in general appearance is very like E. Pronophila; it is, however, nearly allied to E. Saturnus, but differs in the totally different position of the central lines upon the undersurface of the posterior wings.

## 3. Euptychia Muscosa, sp. nov.

3. Alæ supra fuscæ, linea interrupta tenuissima ciliari ochrea: corpus fuscum.

Alæ anticæ subtus pallidiores fusco strigosæ; area costali

viridi pallide irrorata; postica rufo-fuscæ; area basali viridi punctata et maculata; fascia nebulosa postmedia cinerea; punctis quinque discalibus albis minutis; plicis internervularibus albo terminatis: corpus fuscum: exp. alar. unc. 1, lin. 10.

Wings above brown, a very slender interrupted ochreous

fringe line: body brown.

Frontwings below paler, streaked with brown: the costal area palely speckled with green. *Hindwings* red brown; the basal area dotted and spotted with green; a nebulous postmedian ashy band; five minute discal white points; the internervular folds terminated with white: body brown: expanse of wings, 1 inch 10 lines.

Brazil. Coll. Kaden. in Coll. Druce.

Unlike any other *Euptychia*. In its obtusely angled frontwings it resembles some varieties of *E. Quantius*, next to which it should be placed. I believe I have seen a specimen of *E. Muscosa* in Mr. Hewitson's Collection.

## 4. Euptychia Libitina, sp. nov.

¿. Alæ supra fuscæ; anticæ plaga mediana triangulari nigra; lineis duabus marginalibus nigrescentibus; posticæ area basali obscuriore; margine pallidiore; lineis tribus submarginalibus undatis nigris.

Alæ subtus multo pallidiores; anticæ lineis duabus mediis subparallelis tribusque submarginalibus fuscis; fascia ocellari discali albida argenteo multipunctata: posticæ linea cellam transerrante subrecta et altera (in medio sinuata) postmedia ochreo-fuscis: area apicali aurantiaca maculas octo argenteas, fasciolam apicalem albam (utrinque nigro limitatem) punctum ejusdem coloris submarginalem, maculam subanalem (a fasciola angulata alba extrorsum persecta) nigram, maculamque supra eam minorem argenteam nigro-cinctam includente; margine ipso nigrescente; ciliis fuscis: exp. alar unc. 1, lin. 5.

Wings above brown; frontwings with a triangular median black patch; two marginal blackish lines: hindwings with the basal area darker, the margin paler; three undated

submarginal black lines.

Wings below much paler; frontwings with two central nearly parallel lines and three submarginal brown ones; an ocellated discal whitish band with several silver pupils: hindwings with a nearly straight line crossing the cell, and another (sinuated in the middle) beyond the middle, both ochre-brown; the apical area orange enclosing eight silver spots, a short white apical band (bordered on both sides with black), a submarginal point of the same colour, a submal black spot (divided outwardly by a white angulated band) and a smaller silver spot surrounded with black above it; the margin itself blackish; fringe brown: expanse of wings 1 inch, 5 lines.

Brazil. Coll. Kaden. in Coll. Druce.

E. Libitina belongs to the most beautiful group of the genus, and is allied to E. Pagyris, Quadrina, and Clorimena. Euptychia Sylvina of Felder is in the Kaden Collection, and is closely allied to E. Ambigua.

#### GENUS ANTIRRHÆA. Westwood.

## 1. Antirrhwa Phasiana, sp. nov.

3. Q. Affinis A. Geryoni, anticae autem apice subquadrato ocellis majoribus fulvo-cinetis, apicali geminato; posticae ocellis quatuor duplo minoribus caccis fulvo-cinetis; subtus obscuriores, fascia lata communi media distincta diffuse fusca; posticae ocello subanali distincto: exp. alar. unc. 3, lin. 9.

Allied to A. Gergon, but frontwings with the apex nearly square, the ocelli larger, surrounded with fulvous, the apical one geminated; hindwings with four ocelli half the size of those in A. Gergon and blind, encircled with fulvous; below darker, a broad continuous distinct diffusely brown central band; hindwings with a distinct subanal ocellus: expanse of wings, 3 inches, 9 lines.

Inhabits Maracaibo. Coll. Kaden, in Coll. Druce.

This beautiful species must be placed next to A. Geryon of Felder, which we have in the National Collection.

## 2. Antirrhæa Scoparia, sp. nov.

3. Alæ supra velut in A. Philoctetis feminibus; posticæ autem fascia quadrimaculata interno-discali cærulea; subtus fascia anticis alba ad angulum ani introrsum oblique currente: exp. alar. unc. 3, lin. 8.

Wings above as in females of A. Philoete'es; hindwings, however, with a four spotted interno-discal blue band;

below with a white band in the frontwings running obliquely inwards to the anal angle; expanse of wings, 3 inches, 8 lines.

Inhabits — ? Coll. Kaden. in Coll. Druce.

This species, excepting in the double blue band of the hindwings, and the different directions of the lines upon the undersurface, is more like the female of A. Philoctetes than the true male of that species.

#### GENUS STEROMA. Westwood.

## Steroma Zibia, sp. nov.

Forma omnino S. Beyæ; alse supra fuscæ, margine externo nigrescente: posticæ area antemarginali rufescente; angulo ani albo-atomoso: corpus fuscum.

Alæ anticæ subtus fuscæ area anali pallidiore, margine externo nigrescente stria flavo-atomosa subapicali; costa flavo fuscoque variegata; posticæ nigro, fusco ferrugineoque variegatæ; area apicali ochracea, maculis duabus apicalibus ferrugineis: puncto subapicali, aliisque velut in *S. Bega* costalibus argenteis: maculis duabus submarginalibus nigris a squamis argenteis circumdatis: corpus cinereo-fuscum: exp. alar. unc. 1, lin. 8.

Altogether of the shape of *S. Bega: wings above* brown, with blackish outer margin; *hindwings* with the submarginal area reddish; the anal angle white-scaled: body brown.

Frontwings below brown, the anal area paler, the outer margin blackish, a subapical yellow-scaled streak; the costa varied with yellow and brown; hindwings varied with black, brown and ferruginous; the apical area ochraceous, with two apical ferruginous spots; a subapical silver spot and other costal ones as in S. Bega; two submarginal black spots surrounded by silver scales: body grey brown: expanse of wings, 1 inch, 8 lines.

Inhabits Venezuela. Coll. Kaden. in Coll. Druce.

Allied to S. Bega, but very different in the pattern of the undersurface.

#### GENUS PEDALIODES. Butler.

## 1. Pedaliodes Japhleta, sp. nov.

9. Alæ supra fuscæ; anticæ subtus fuscæ, fascia perlata media irregulari obscuriore ferrugineo utrinque diffuse limitata; costa et area externo-apicali pallidioribus nigrostriolatis; macula costali subapicali punetisque quatuor, discalibus albis; posticæ fere velut in *P. Piletha*: exp. alar. unc. 2, lin. 4.

Wings above brown; frontwings below brown, with a very wide darker irregular central band, diffusely bounded on each side with ferruginous; the costal and outer apical area paler, striolated with black; a costal subapical spot and four discal points, all white; hindwings almost as in P. Piletha: expanse of wings, 2 inches, 4 lines.

'. Piletha: expanse of wings, 2 inches, 4 lines Inhabits —? Coll. Kaden, in Coll. Druce.

Allied to *P. Piletha*, but differs considerably in the coloration of the under surface of the frontwings.

## 2. Pedaliodes Rapha, sp. nov.

Alæ supra fuscæ; area apicali cupreo tincta; anticæ fasciola subrecta introrsum diffusa, extrorsum dentata; posticæ angulo anali ferruginoso; subtus pallidiores; posticæ areis abdominali et anali ferruginosis, migro striolatis; punctis quatuor in serie undulata apicali-discalibus argenteis; maculis tribus anali-discalibus pyramidatis aureoflavis; punctis subtribus valde indistinctis subanalibus nigris; linea indistincta angulis alternis undata submarginali; corpus cinereo-fuscum: exp. alar. unc. 1, lin. 10.

Wings above brown, the apical area tinged with copper colour; frontwings with a nearly straight band diffused on the inner, but dentated on the outer, edge; hindwings

with somewhat ferruginous anal angle.

Wings below paler; hindwings with the abdominal and anal areas ferruginous, striolated with black; four silver disco-apical spots in an undulated line; three disco-anal golden yellow pyramidal spots; two to three very indistinct subanal black points; an indistinct zigzag submarginal line; body grey-brown: expanse of wings, 1 inch, 10 lines.

Inhabits—? Coll. Kaden. in Coll. Druce. Closely allied to *P. Cocytia* and *P. Plotina*.

## 3. Pedaliodes Oaxes, sp. nov.

Alæ supra fuscæ; antieæ subtus hic illuc rufescentes; fascia maculari valde irregulari pone cellam posita, introrsum diffusa, extrorsum nigro-limitata; ocellis duobus discalibus indistinctis nigris albo-pupillatis pone cellam positis; posticæ cinereo-fuscæ, fascia lata media valde irregulari fusca, extrorsum ad costam et angulum analem albo-marginata; macula media pone cellam flava; punctis sex ocellaribus albis diffuse nigro-cinctis in serie irregulari discali positis; margine externo fuscescente; corpus fuscum: exp. alar, unc. 1, lin. 6.

Wings above brown; frontwings below varied with reddish; a very irregular macular band placed beyond the cell, diffused internally and bounded with black externally; two indistinct white-pupilled black discal ocelli placed beyond the cell; hindwings grey brown, with a very irregular broad central brown band, margined externally with white at the costa and anal angle; a central yellow spot beyond the cell; six ocelloid white points diffusely surrounded with black placed in an irregular discal line; outer margin brownish; body brown; expanse of wings, 1 inch.

Cuba. Coll. Kaden. in Coll. Druce. Very like an *Erebia*, but evidently a *Pedaliodes*,

6 lines.

## 4. Pedaliodes Lugubris, sp. nov.

¿. Alæ supra fuscæ; posticæ puncto inter nervulos secundum et tertium medianos ferrugineo: subtus pallidiores; anticæ rufescentes, macula subapicali nigra: stria pone medium angulari diffuse fusca; margine externo late fusco: posticæ nigro-fusco striolatæ; punctis tribus in serie obliqua subapicali albis: corpus cinereo-fuscum: exp. alar. une. 1, lin. 8.

Wings above brown: hindwings with a ferruginous point between the second and third median nervules; below paler: frontwings reddish, a subapical black spot; a diffusely brown angular streak beyond the middle; outer margin broadly brown: hindwings finely striated with black brown; three subapical white spots in an oblique line; body grey brown: expanse of wings, 1 inch, 8 lines.

Venezuela. Coll. Kaden. in Coll. Druce.

Allied to the preceding species, but quite different in appearance.

#### GENUS LYMANOPODA. Westwood.

#### Lumanopoda Issacha, sp. nov.

Alæ supra fuscae; subtus rufescentes; anticæ punctis tribus in serie angulari positis discalibus albis, infima nigro-cineta: posticæ stria pone medium obliqua interrupta nivea : corpus fuscum : exp. alar. unc. 1, lin. 94.

Wings above brown: below reddish; frontwings with three white discal points placed in an angular line, the lowest black edged: hindwings with an oblique interrupted snow-white stria beyond the middle; body brown: expanse of wings, 1 inch, 91 lines.

Cuba. Coll. Kaden, in Coll. Druce.

Allied to L. Albomaculata.

#### GENUS CORADES. E. Doubleday.

#### 1. Corades Fluminalis, sp. nov.

9. Alæ supra fuscæ, anticæ apice paululum pallidiore; maculis duabus pone cellam subcostalibus albidis a vena subcostali bisectis; maculis tribus fulvis discalibus inter ramos medianos angulariter positis: posticae striolis tribus

inter venas ferrugineis; corpus nigrescens.

Alse antice subtus basi pallidiores; apice multo pallidiore, introrsum a maculis duabus diffusis albidis limitato: macula pone cellam a venis interrupta costali albida: maculis tribus supernis discalibus pallidioribus; posticae ochraceae cupreo-fusco striolatae; stria cellæ medium transerrante : fascia media (introrsum diffusa, extrorsum a stria recta albida marginata), stria discali et margine externoanali cupreo-fuscis; punctis quatuor discalibus squamisque plurimis submarginalibus lilacino-albidis; corpus ochraceofuscum: exp. alar. unc. 3.

Wings above brown, frontwings with the apex rather paler; two whitish spots bisected by the subcostal vein beyond the cell: three fulvous discal spots placed angularly between the median branches; hindwings with three ferruginous strike between the nervures; body blackish.

Frontwings below paler at the base; the apex much paler, bounded internally by two diffused whitish spots; a costal whitish spot interrupted by the nervures beyond the cell; three discal spots as above, but paler; hindwings ochraceous striolated with copper brown; a streak crossing the centre of the cell, a central band (diffused internally and bordered externally by a straight whitish streak), a discal streak and the anal outer margin copper brown; four discal points and a number of submarginal scales illac-whitish; body ochraceous-brown; expanse of wings, 3 inches.

Inhabits —? Coll. Kaden, in Coll. Druce.

## 2. Corades Laminata, sp. nov.

Q. Alæ supra fuscæ; anticæ macula pone cellam subcostali bisecta ochrea, plagisque quatuor discalibus pallide fuscis introrsum ochraceo-atomariis et fasciam (introrsum dentatam) formantibus; posticæ fascia elongato-pyramidata ochraceo-fusca, a costa ad angulum ani currente; margine externo ciliisque ochreis; corpus nigro-fuscum. Anticæ subtus fere velut in specie præcedente, sed apice argenteo variegato maculisque discalibus ochreis, et in serie recta positis; posticæ ochreæ argenteo striolatæ; fascia lata medin brunnea argento utrinque marginata striaque ejusdem coloris diffusa cellam ante medium transerrantæ; stria submarginali et margine externo-anali late brunneis; corpus fuscum; exp. alaz. unc. 3, lin. 4.

Wings above brown; frontwings with a bisected ochreous subcostal spot beyond the cell, and four pale brown discal patches dusted internally with ochraceous, and forming a band (dentated on its inner edge); hindwings with an elongate triangular ochraceous-brown band running from the costa to the anal angle; outer margin and fringe

ochreous: body black-brown.

Frontwings below almost as in the preceding species, but the apex varied with silver, and the discal spots ochreous and placed in a straight line; hindwings ochreous, striolated with silver; a broad central red-brown band margined on both sides with silver, and a diffused streak of the same colour crossing the cell before its centre; a submarginal streak and the anal outer margin broadly red-brown: body brown: expanse of wings 3 inches, 4 lines.

Bogota. Coll. Kaden. in Coll. Druce.

Allied to the preceding species, but very distinct.

#### SUB-FAMILY MORPHINÆ. Butler.

GENUS MORPHO.

Morpho Juturna, sp. nov.

Alæ supra cinereo-argentæe; anticæ costa, plaga cuneiformi disco-cellulari, (in costam a macula alba interrupta,)
apice et margine externo, nigro-fuscis; maculis sex submarginalibus rotundatis, tribus superioribus flavis, inferioribus albis; maculis sex minoribus subgeminatis antemarginalibus fulvis: posticæ margine latius nigrescente,
maculis tribus disci superioris submarginalibus albis; linea
marginali nigra introrsum inter venas ferrugineo, extrorsum
a ciliis fuscis limitata; margine abdominali ochreo-tincta.

Alæ subtus rufo-fuscæ; antiææ fasciolis tribus obliquis discoideis, (media latiore) fusco albidis; striola pone cellam undulata rufo-fusca per nebulam albidam errante; area interno-basali nigro-variegata; plagis tribus lunularibus (infra cellam aream basalem terminantibus) fusco albidis, introrsum nigro-limitatis; ocellis tribus discalibus consuctis; fascia submarginali nigra, introrsum a plagis subseptem ochraceis semicircularibus limitata; fascia marginali ferruginea a linea media nigra interrupta: posticæ area basali fusco-albido quadrate fasciolata; ocellis tribus subanalibus duobusque oblique infra costam positis, omnibus fuscis cæruleo punetatis fulvo-cinetis nigro-circumcinetis et fusco-zonatis; stria submarginali fusca, introrsum albo extrorsum ferrugineo limitata; margine nigro a linea media albida interrupto: exp. alar. unc. 6, lin. 4.

Wings above silver grey: frontwings with the costa, a wedge-shaped, disco-cellular patch (interrupted upon the costa by a white spot) the apex and outer margin blackbrown; six submarginal round spots, the upper three yellow, the lower white; six smaller subgeminate nearly marginal fulvous spots: hindwings with the margin more broadly blackish; three submarginal white spots on the upper part of the disc; a marginal black line bounded internally between the nervures with ferruginous, externally by the brown fringe; the abdominal margin ochre tiuted.

Wings below red-brown; frontwings with three oblique whitish-brown discoidal bands (the centre one broader); a waved red-brown streak beyond the cell wandering

through a whitish cloud; the interno-basal area black varied; three whitish-brown lumlar patches (bounding the basal area below the cell, margined internally with black; three discal ocelli as usual; a submarginal black band, bounded within by about seven semicircular ochraceous patches; a marginal ferruginous band interrupted by a central black line: hinderings with the basal area squarely banded with whitish-brown; three subanal ocelli, and two placed obliquely below the costa, all brown, blue speckled with fulvous irides surrounded with black and zoned with brownish; a submarginal brown streak, bounded internally with white, externally with ferruginous; the margin black interrupted by a central whitish line: expanse of wings, 6 inches, 4 lines.

New Granada. Coll. Druce.

M. Juturna is a beautifully distinct species of the Hecuba group; it may be at once distinguished from its allies by the acutely pointed apex of the anterior wings, the tricaudate anal margin, and deeply scalloped apical margin of the posterior wings, and the almost white colour pervading nearly the whole of the upper surface.

### SUB-FAMILY NYMPHALINÆ. Bates.

GENUS ADOLIAS. Boisduval.

Adolias Laverna, sp. nov.

¿. Affinis A. Saliæ et A. Ramadæ\*; alæ supra fusææ characteribus consuetis basalibus nigris: fascia lumulari a venis interrupta albida; linea lumulari fusca fasciæ hujus medium transerrante; area externa paululum pallidiore; posticæ area externa introrsum violacea, extrorsum pallide fusca, ad apicem albicante; lineolis septem hastatis discalibus nigris; margine fusco: corpus nigro-fuscum: alæ subtus ochreæ; lineis supernis nigris; fascia discali communi hastato-lunulari roseo-albida, fusco utrinque limitata; posticæ area abdominali virescente: corpus albicans: exp. alar. unc. 2, lin. 2.

9. Omnino velut in Tanaëcia Pulasara colorata.

Allied to A. Salia and A. Ramada: wings above brown, with the usual black basal characters; a lunular whitish band interrupted by the nervures; a lunular brown line

<sup>\*</sup> The female of A. Ramada is the A. Surjas of Vollenhoven.

traversing the centre of this band; the external area slightly paler; hindwings with the outer area violet within, without pale brown, whitish at the apex; seven black hastate discal strie; margin brown: body black-brown: rings below ochreous; the black lines as above: a continuous discal hastate-lunular rosy-whitish band, bounded on both sides with brown; hindwings with the abdominal area greenish: body whitish: expanse of wings 2 inches, 2 lines,

z. Borneo, Colf. Druce. ♀. Penang. B. M.

This Adolias may be at once distinguished from its allies by the violet inner half of the external area of the hindwings; in A. Ramada it is bright blue, and in A. Salia green: the close resemblance which the female bears to Tanaccia Pulaiara is very striking; indeed, before I discovered the structural differences between Adolias and Tanaccia, the two insects were united as one species in our Collection.

#### GENUS PREPONA. Boisdural.

## Prepona Louisa, sp. nov.

3. Alæ supra glorio e purpurascentes, fascia media antice attenuata media viridissima; marginibus late fuscis; postice ocello magno subanali nigro cueso ferrugineo cineto; area abdominali pallide fusca pilis consuetis fulvis; corpus fuscum; alæ subtus fere velut in P. Demodice; exp. alar. une. 3. lin. 7.

Wings above gloriously shot with purple, with a central brilliantly green band attenuated in front; the margins broadly brown: hindrings with a large blind black subanal occllus with ferruginous iris: the abdominal area pale rown, with the usual fulyous hairs: body brown: wings elow almost as in P. Demodice: expanse of wings, 3 nches, 7 lines.

Cuba. Coll. Kaden. in Coll. Druce.

This is one of the most beautiful species in this handsome enus. I have named it in honour of Mrs. Herbert Druce,

# FAMILY ERYCINIDÆ.

GENUS ARICORIS, Westwood.

Aricoris Jansoni, sp. nov.

3. Alæ supra fere velut in A. Lago, majores et ad basin virescentes; apice posticarum latius nigrescente: subtus fusce anticæ plaga basali a vena costali intersecta, duabusque pone medium a venis intersectis fasciam interruptam fornantibus, albis; posticæ areis basali et apicali albicantibus; venis migrescentibus: exp. alar. unc. 1, lin. 9.

Q. Alie supra fere velut in A. Lago, majores et area basali nitide carulescentes: subtus fusca cupreo nitentes albido venosa; antica fascia postmedia obliqua ochrea; postica costa basali ochreo albida; margine externo albo quadri-

maculato: exp. alar. unc. 1, lin. 9.

3. Wings above almost as in A. Lagus, larger, and greenish at the base; the apex of the hindwings more broadly black: below brown; frontwings with a basal white patch, intersected by the nervures beyond the middle, forming an interrupted band; hindwings with the basal and apical areas whitish: the veins blackish: expanse of wings, 1 inch, 9 lines.

Q. Wings above almost as in A. Lagus, larger, and with the basal area brilliantly shot with blue: below brown, shot with copper-colour and veined with whitish; frontwings with an oblique ochreous band beyond the middle; hindwings with the basal costa whitish ochreous; the outer margin with four white spots: expanse of wings 1 inch. 9 lines.

Chontales (Nicaragua). Coll. Druce and B. M.

I have described this species from the smallest specimen that I have yet seen: it is constantly much larger than A. Lagus: it is named after its captor, Mr. E. M. Janson.

#### GENUS MESENE.

# Mesene Oriens, sp. nov.

Alæ supra aurantiacæ ciliis fuscis: auticæ costa apicali margine externo et venarum apicibus nigris; posticæ maculis venas terminantibus hastatis nigris: corpus aurantiacum capite albicante: alæ subtus pallidiores, margine externo et anticarum interno albicantibus : exp. alar. unc. 1. liu. 1.

Wings above orange with brown fringe: frontwings with the apical costa, outer margin and terminations of the nervures black; hindwings with black hastate spots terminating the nervures: body orange, with whitish head: wings below paler, the outer margin and the inner margin of the frontwings whitish: expanse of wings, I inch, I line,

Venezuela. Coll. Kaden. in Coll. Druce.

Allied to M. Nola of Herrich Schaffer.

#### GENUS BÆOTIS. Hubner.

# Baotis Quadrinota, sp. nov.

- 3. Ala supra nigro-fusca, fascia tenui media fulva : corpus fuscum: alæ subtus pallidiores fascia duplo latiore aurantiaca: exp. alar. unc. 1, lin. 1.
- Q. Alæ supra fuscæ, fascia tenui media ochrea ad costam anticarum et angulum abdominalem posticarum fulvescente; macula in alis omnibus discali alba; alæ subtus pallidiores fascia duplo latiore: exp. alar. lin. 11.

Rio (Beske). Coll. Kaden. in Coll. Druce.

#### GENUS LYMNAS. Blanchard.

# Lymnas Hodia, sp. nov.

Alæ supra nigerrimæ, anticæ fasciola obliqua tenui postmedia aurantiaca; posticæ aliquando stria externo-anali aurantiaca; macula basali rufa: corpus nigrum, abdomine stria laterali coccinea: alæ subtus pallidiores, fuscæ, venis albidis, fascia pallidiore: exp. alar. unc. 1, lin. 7.

Wings above jet black, frontwings with a slender oblique orange postmedian band; hindwings sometimes with an orange streak on the anal outer margin; a basal red spot: body black, abdomen with a lateral scarlet line: wings below paler, brown, with whitish veins, the band paler: expanse of wings, 1 inch, 7 lines.

Venezuela. Coll. Kaden. in Coll Druce.

Allied to L. Jarbas of Fabricius (Melantho Ménétriés), but perfectly distinct. A revision of the Genera of the Sub-family Pierime: by ARTHUR GARDINER BUTLER, F.L.S., F.Z.S., &c.

It is now about twenty-three years since Mr. Doubleday revised this group of Butterflies in the "Genera of Diurnal Lepidoptera," in this work he recognized eighteen distinct genera, several of which he separated into sections in the belief "that at some future time they would be adopted as generic divisions."

Of the eighteen genera above mentioned only eleven have any claim to stand, viz., Euterpe, Swains; Pieris, Boisd; (but not of Schrank, Hübner, nor Latreille); Zegris, Rambur; Nathalis, Boisd; Hebomoia, Hübner; Eronia, Boisd.; Callidryas, Boisd. and Terius, Swainson, (for convenience sake); Gonepterye, Leach; Colias, Fabricius; the remainder were all previously characterized or the generic name preoccupied.

Since the publication of the "Genera" the group has been taken in hand by Messrs. Wallengren, Felder, Herrich Schäffer, Reakirt, and Wallace, all of whom have added genera, and thus greatly facilitated the study of the

sub-family.

The unwieldy genus *Picris* has been rendered more intelligible by the labours of Messrs. Felder, Wallengten, and Wallace, but hitherto it has still remained far too large and will readily bear further sub-division; the genus *Terias* is amost in a worse condition, the little genus *Leveidia* of Herrich-Schäffer only having relieved it of two or three species.

In the following pages I hope to be enabled to advance the study of these beautiful butterflies by a careful revision of their characters and by the erection of new genera.

### REVISION OF SYNONYMY.

GENUS 1. PRIONERIS. Wallace.

Trans. Ent. Soc. London, 4, 3rd S., pt. 3, p. 383. (November, 1867.)

GENUS 2. DELIAS, Hübner.

Verz. bek. Schmett., p. 91. (1816).

Cathamia Hübn.; Thyca, Wllgr.

GENUS 3. PEREUTE. Herrich-Schäffer.

Corr. Blatt. Zool. min. Ver. Regensb. XXI., p. 105 (1867.)

GENUS 4. LEODONTA. Butler.

Includes L. Dysoni, Tagaste, Tellane, and allies.

GENUS 5. ELODINA. Felder.

Reise der Novara, Lep. p. 215 (1865).

GENUS 6. NYCHITONA. Butler.

Pontia Boisd, nec. Fabricius.

The *Pontia* of Fabricius, as Boisduval admits, was intended for the reception of the large white Butterflies, the type being *P. Cratagi*.

GENUS 7. NATHALIS. Boisduval.

Sp. Gén. Lep. 1, p. 589 (1836).

GENUS 8. MYLOTHRIS. Hübner.

Verz. bek. Schmett., p. 90 (1816).

Includes M. Poppea, Rhodope, Agathina, and Trimenia.

GENUS 9. EUTERPE. Swainson.

Zool. Ill. 2nd. S., pl. 74 (1831).

Restricted to the *Terca* group: the genus has been used in Botany, but I do not consider that a sufficient reason for rejecting it altogether, since it has been so long in use in Entomology.

GENUS 10. EUCHEIRA. Westwood.

Trans. Ent. Soc. London, 1, p. 44, pl. VI. (1839). I only know this genus from the plate.

GENUS 11. HESPEROCHARIS. Felder.

Verhandl. Zool. botan. Gesellsch. Wien., p. 493 (1862).

GENUS 12. CATASTICTA. Butler.

Includes C. Nimbice, Semiramis, Bithys, Sebennica, and allies.

GENUS 13. COLIAS. Fabricius.

Illiger's Mag., vol. 6, p. 284 (1807).

Colotis, Hübn.; Zerene, Hübn.

GENUS 14. LEUCIDIA. Herrich-Schäffer.

Corr. Blatt. Zool. min. Ver. Regensb. XXI., p. 105 (1867).
Includes L. Elvina, Brephos, and allies, formerly in the genus Terias.

GENUS 15. SPH.ENOGONA. Butler.

Includes  $S.\ Ectriva$ , Bogotana, and allies, formerly in the genus Terias.

GENUS 16, TERIAS. Swainson.

Zool, Ill., 1st Ser., pl. 22 (1820).

Eurema and Abaris, Hübn.; Heurema, H. Sch.

Restricted to the *Herabe*, *Elathea*, *Sinöe*, and *Tominia* groups: I do not think it advisable to alter a name so long in general use, otherwise the genus *Abacis*, Hübn. (type *A. Nicippe*) would take precedence; the name *Eurema* (type *E. Delia* Cr.) being subsequently used in Lepidoptera may be allowed to rest: I find no structural difference in *Heurema*.

GENUS 17. PYRISITIA. Butler.

Includes P. Proterpiu, formerly in Terius.

GENUS 18. LEPTOPHOBIA. Butler.

Includes L. Eleone, Penticu, Balidia, Arapa, Pylotis, and allies, formerly placed in the genus Pieris.

GENUS 19. GONEPTERYX. Leach.

Edin. Enc. IX., p. 128 (1810).

Anteos, Hübn.

Restricted to the *Rhamni* group; the name *Anteos* is too near to *Anteon* (*Hymenoptera*).

GENUS 20. AMYNTHIA. Swainson.

Zool, Ill., 2nd S., pl. 65 (1832-33).

Rhodocera, Boisd.

Includes A. Swainsonia, Marula, and Leachiana.

A. Leachiana is the type of Dr. Boisduval's Rhodocera; it might form a section of Amynthia.

GENUS 21. DERCAS. E. Doubleday.

Gen. Diurn. Lepid., p. 70 (1847).

Rhodocera, Vollenhoven.

Includes D. Verhuellii, Gobrius, and Wallichii.

GENUS 22. KRICOGONIA. Reakirt.

Proc. Ent. Soc. Phil. 2, p. 355 (1863).

Includes K. Lyside and allies.

GENUS 23. MEGONOSTOMA. Reakert.

Proc. Ent. Soc. Phil. 2, p. 356 (1863).

 $\Lambda$  good genus including the Cosonia group of the old genus Colias

GENUS 24. CALLIDRYAS. Boisdural.

Lép. Am. Sept., p. 73 (1829).

Type C. Enbulc. Linnaus.

Martia, Catopsilia, and Phabis, Hübn.

Hübner previously characterized this genus under three different names, but the name Callidryus having been so long in use for so large and widely distributed a group I do not think it at all desirable to change it: of the names used by Hübner, Murtia is too close to a genus of Crustucca, Catopsilia is not unlike Catops and Phobis is too near to Phabe subsequently used in Colcoptera; in the latter case of course the Colcopterous name would have to be altered, but considering all things I think it best for us to retain Callidryus.

### GENUS 25. PTYCHOPTERYX. Wallengren.

Köngl. Svensk. Vetensk.—Akad. Handl., p. 17 (1857). Ofvers, Kongl. Vetensk.—Akad. Förhandl., p. 77 (1858)

as Thespia.

Dr. Felder considers this genus identical with *Terucolus* Swains., but, if I have rightly understood Dr. Wallengren's description, it is distinct.

GENUS 26. TERACOLUS. Swainson.

Zool. Ill., 1st S., pl. 115 (1833).

Aphrodife, Hübn.: Callosune, Doubl.: Idmais, Boisd.; Anthopsyche, Wllgr.

This genus will include the whole of the species hitherto referred to Idmais and Callosum: I can find no constant

character by which to separate any one group of this assemblage from another.

GENUS 27. IXIAS. Hübner.

Verz. bek. Schmett., p. 95. (1816). Thestias Boisd.

GENUS 28. HEBOMOIA. Hübner.

Verz. bek. Schmett., p. 95 (1816). Iphias, Boisd.; Pieris, Latr.

GENUS 29. HELIOCHROMA. Butler.

Cist. Ent., p. 15. (1869.)

GENUS 30. PIERIS. Boisduval.

Sp. Gén. Lép., p. 434 (1836).

Perrhybris, Hübn.; Picris and Eronia (part) anet.

The type of *Picris*, Schrank, was *Parnussius Apollo*, that of Latreille and Godart was *Hebomoia Leucippe*, but since we ought to have a genus *Picris* in the *Picrime*, I adopt that of Boisdaval, the type of which is a white butterfly from Tropical America and unfortunately not congeneric with the white European species.

GENUS 31. APPIAS. Hidmer.

Verz. bek. Schmett., p. 91 (1816) Catophaga, Hübn.; Tachyris, Wallace.

GENUS 32. PHRISSURA. Butler.

At once distinguishable from Appius by the rounded form of the wings and different form of the disco-cellulars of frontwings.

GENUS 33. DAPTONOURA. Butler.

Cat. Fabr. Dinrn. Lepid., p. 209 (1869).

Some of the species of this genus bear a general resemblance to males of *Appias*, as for instance *D. Isandra* to *A. Drusilla*, 3, the position of the upper disco-cellular of the frontwings however will at once separate them.

GENUS 34. BELENOIS. Hübner.

Verz. bek. Schmett. p. 92 (1816).

Annaphæis, Hübn.; Pinacopteryr, Wllgr. Includes the Severina and Calypso groups.

#### GENUS 35. PONTIA. Fabricius.

Illiger's Mag., 6, p. 283 (1807).

Aporia, Hübn.; Leuconca, Donz.; Neophasia, Behr.

1 can find no structural difference between *P. Cratarji* (the type) and the *Nama* and *Judith* groups; *P. Cocytia*, *Notha*, and *Menapia* may form a section (*Neophasia*, Behr.) on account of the different form of the wings.

#### GENUS 36. METAPORIA. Butler.

Differs from the preceding in the position and length of the disco-cellulars and in the less hairy palpi.

### GENUS 37. SYNCHLOË. Hübner.

Verz. bek. Schmett., p. 94 (1816).

This generic name has been applied to a genus of Nymphalina, the latter may now take the name Chlosyne.

#### GENUS 38. TATOCHILA. Butler.

Allied to the preceding and to *Pontia*, but differing from *Synchloë*, in neuration, and from *Pontia* in form and palpi.

### GENUS 39. HERPÆNIA. Butler.

Resembles an Arge (Satyrino) in coloration: it differs from the preceding genera in the totally different disposition of the disco-cellulars in frontwing.

## GENUS 40. PHULIA. Herr-Schäffer.

Corr. Blatt. Zool. min. Ver. Regensb. XXI., p. 105 (1867).

### GENUS 41. ERONIA. Boisdural.

Sp. Gén. Lép., 1, p. 604 (1836).

Dryas, Wllgr.

Restricted to E. Cleodora and the Leda group.

The name *Dryas* was previously used by Hübner and has subsequently been used again by Felder.

# GENUS 42. NEPHERONIA. Butler.

Will include N. Idotoa, Thalassina, Argia, Buquetii, Pharis, Chione., and the Asiatic group N. Hippia, Jobea, Babera, and allies.

# GENUS 43. EROESSA. Doubleday.

Gen. Dinrn. Lepid., p. 56 (1847).

The species E. Chilensis bears a general resemblance to

the genus Hesperocharis: it is however more nearly allied to  $Euchlo\tilde{c}$ .

GENUS 44. EUCHLOË. Hübner.

Verz. bek. Schmett., p. 94 (1816)

Anthocharis, Boisd.; Midea, Herr-Sch.

GENUS 45. ZEGRIS. Rambur.

Ann. Soc. Ent. France, V., p. 581 (1836).

GENUS 46. LEPTOSIA. Hübner.

Verz. bek. Schmett., p. 95 (1816).

Leucophusia, Boisd.

GENUS 47. DISMORPHIA. Hülmer.

Verz. bek. Schmett. p. 10 (1816).

Enantia, Hübn.; Licinia, Swains.; Leptalis. Dalm.

GENUS 48. MOSCHONEURA. Butler.

Includes M. Methymna, Pinthocus, and Cydno.

In the following descriptions each genus of a division is compared with the genus preceding it, in order to prevent as much as possible the frequent repetitions which render descriptions so puzzling to the Entomological student.

## DESCRIPTIONS OF THE GENERA.

### DIVISION 1. Three subcostal nervules in frontwings.

GENUS 1. PRIONERIS. Wallace.

Type P. Thestylis. Doubleday.

Frontwings elongated, pointed at apex; costa serrated: subcostal nervure with first branch some distance before end of cell, second and third branches forming a fork near apex; first discoidal branching from subcostal some distance beyond cell; upper disco-cellular longer than lower and very oblique, lower disco-cellular slightly oblique, median nervules emitted at equal distances from each other

Hindwings pyriform; cell simple, pointed; the disco-cellulars being very oblique.

Body pilose; palpi and antennæ long; the latter with long gradually formed club.

GENUS 2. DELLAS. Hübner.

Type D. Eqialea Cramer.

Frontwings less clongated than in *Prioncris*, not pointed at apex; costa not seriated: upper disco-cellular equal to lower, oblique; lower disco-cellular nearly perpendicular.

Hindwings subpyriform; cell less pointed; the upper disco-cellular being nearly in a line with the subcostal, the lower oblique.

Body more slender; antennæ with flattened club.

GENUS 3. PEREUTE. Herrich-Schäffer.

Type P. Callinice. Felder.

Form of *Delius*: upper disco-cellular of frontwings longer than lower; lower disco-cellular angulated; both oblique.

Hindwings sub-pyriform; cell simple, elongate, wedge shaped; the disco-cellulars being in an oblique line and of nearly equal length.

Body with very slender palpi and long antennae, terminating in a flattened, strongly excavated club.

GENUS 4. LEODONTA. Butler.

Type L. Dysoni. Doubleday.

Frontwings more robust, outer margin strongly dentated especially below apex; upper disco-cellular shorter than lower, oblique; lower disco-cellular angulated, nearly perpendicular.

Hindwings with strongly waved costa and caudate projections terminating first and second median nervules; costal nervure terminating before apex; first subcostal branch arched, emitted close to second; upper disco-cellular half the length of lower and oblique; lower disco-cellular subangulate, waved, oblique; third median branch emitted near to second.

Body very hairy; palpi slender; antennæ, very long, terminating in a flattened club.

### DIVISION 2. Four subcostal nervules in frontwings.

SUB-DIVISION 1. One discoidal nervure in frontwings.

GENUS 5. ELODINA. Felder.

Type E. Therasia. Felder.

Frontwings short, pointed at apex; costal nervure terminating just beyond middle of costa: first branch of subcostal nervure emitted some distance before end of cell, second a little beyond, third and fourth \* forming a fork a short distance beyond third; discoidal nervure emitted close to subcostal reducing upper disco-cellular to a mere point; lower disco-cellular strongly arched; third median branch emitted near to second.

Hindwings pyriform; costal nervure terminating before apex; first subcostal branch arched, emitted close to second or upon a footstalk with it (E. Signata); upper discocellular half the length of lower and oblique; lower discocellular sub-angulate, waved, oblique; third median branch emitted near to second.

Body slender, slightly hairy; palpi and antennae short, the latter with flattened club.

GENUS 6. NYCHITONA. Butler.

Type N. Dorothea. Fabricius.

Pontia, Boisd, nec Fabr, vel Hübn.

Frontwings subpyriform, the apex rounded, first and second subcostal branches emitted far apart and generally some distance before end of cell, the second sometimes at end of cell (*N. Niobe, Wallace*), the third and fourth as in *Elodina*; third median branch half as near again to second as second to first.

Hindwings subtriangular; first subcostal branch arched; second some distance beyond, emitted close to discoidal nervure, reducing upper disco-cellular to a point; lower disco-cellular oblique, angulated; third median branch not far from second.

Body very slender, slightly bristly; palpi very short; antenna long, ending in a long somewhat compressed club.

GENUS 7. NATHALIS. Boisduval.

Type N. Iole. Boisduval.

Frontwings somewhat pointed, second subcostal emitted at or beyond end of cell; third and fourth branches forming a long fork to apex: disco-cellulars nearly perpendicular, arched, lower twice as long as upper; median branches near together towards end of cell.

Hindwings subpyriform; first subcostal arched, second just beyond first and near discoidal nervure; upper discocellular short oblique; lower long, oblique, subangulated.

ъ 3

<sup>\*</sup> This fourth subcostal may here represent the upper discoidal of the preceding division.

Body slender, hairy; palpi long, very hairy; antennæ short, slender, with flattened club.

#### GENUS 8. MYLOTHRIS. Hübner.

Type M. Poppea. Cramer.

Frontwings subtriangular; first and second subcostals emitted before end of cell; upper disco-cellular oblique; lower three times the length of upper, nearly perpendicular, angulated; median branches wide apart.

Hindwings. Lower disco-cellular twice the length of

upper, not angulated.

Body moderately slender, hairy; palpi long, hairy beneath; antennae moderately long, slender, with flattened club

### SUB-DIVISION 2. Two discoidal nervures in frontwings.

GENUS I. EUTERPE. Swainson.

Type E. Terra, Swainson, P. Terias, Godt.

Frontwings obovate; costal nervure terminating before apex; first subcostal branch emitted before end of cell, second just beyond, third and fourth forming a fork near apex; first discoidal nervure uniting with subcostal just beyond second branch; upper disco-cellular oblique, scarcely longer than lower which is perpendicular; median branches emitted at nearly equal distances from each other.

Hindwings pyriform; costal nervure not reaching apex, cell simple, elongate, pointed, the disco-cellulars being in a nearly continuous oblique line; the second and third me-

dian branches somewhat near together.

Body slender, slightly hairy; palpi and antennæ slender and long, the latter with flattened club.

#### GENUS 10 EUCHEIRA Westwood

Type E. Socialis. Westwood.

Frontwings. First discoidal nervure emitted near to subcostal at end of cell; upper disco-cellular very oblique.

Hindwings. Cell simple, not terminating in a long point; the upper disco-cellular being nearly in a line with subcostal, the lower nearly perpendicular. (From figures on pl. VI. of Tr. Ent. Soc., 1st S., 1).

#### GENUS 11. HESPEROCHARIS. Felder.

Type H. Erota. Lucas.

Frontwings. Second subcostal branch emitted near to

apex and a long way beyond end of cell; third and fourth forming a small fork to apex; upper disco-cellular oblique; lowerdisco-cellular slightly arched and nearly perpendicular

Hindwings. Costa generally slightly waved; hindwing

cell simple, pointed.

Body hairy; palpi very hairy; antennæ short with scarcely flattened club.

#### GENUS 12. CATASTICTA. Butler.

Type C. Nimbice, Boisdayal.

Frontwings. Second subcostal branch emitted at end of cell; third and fourth forming a short fork towards apex; upper discoidal springing from subcostal at some distance beyond cell.

Hindwings. Second and third median branches emitted

near together.

Body hairy; palpi hairy; antennæ long, terminating in a flattened club.

#### GENUS 13. COLIAS. Fabricius.

Type C. Palæno. Linnæns.

Frontwings. Second subcostal emitted at or beyond end of cell; upper discoidal as in preceding genus, lower emitted near to subcostal; upper disco-cellular short, arched; lower disco-cellular arched and sometimes biangulated.

Hindwings. Cell short somewhat wedge-shaped; upper disco-cellular short, oblique, lower long and subangulated.

Body hairy; palpi long, scarcely hairy; antenna short; club gradually formed, not flattened.

### GENUS 14. LEUCIDIA. Herrich-Schäffer.

Type L. Elphos. Felder.

Frontwings subpyriform with rounded apex; second subcostal emitted beyond end of cell: upper discoidal springing from subcostal some distance beyond cell; third median branch one third as far from second as second from first.

Hindwings subpyriform, costa slightly waved; costal nervure running to apex; first and second subcostal branches springing together in a fork upon a footstalk; disco-cellulars of nearly equal length, arched and in a continuous oblique line; second and third median branches near together.

Body very slender, searcely hairy; pulpi very short; antennae short, slender, with gradually formed club.

#### GENUS 15. SPHLENOGONA. Butler.

Type S. Ectrica. Doubleday.

Frontwings subtriangular, with slightly rounded apex; second branch of subcostal emitted close before end of cell; disco-cellulars oblique the lower twice as long as the

upper and arched.

Hindwings subquadrate, the second branch of the median nervure terminating in an angle, or caudate projection (Gratiosa); the costal nervure very slightly exeavate; first and second subcostals on a very short footstalk; upper disco-cellular one-third the length of lower, oblique; lower disco-cellular oblique, strongly arched.

Body slender, covered with short hair; palpi rather short;

antennæ slender, with slightly flattened club.

### GENUS 16. TERIAS. Swainson.

Type T. Hecube. Linnaus.

Frontwings. Second subcostal emitted near end of cell, disco-cellulars nearly perpendicular and both strongly

arched, the lower longer than the upper.

Hindwings rounded; first and second subcostals emitted near to each other; upper disco-cellular rather less than half as long as lower and perpendicular; lower angulated, partly perpendicular, partly oblique.

Body slender with short hair; palpi and antenna short,

the latter with narrow slightly compressed club.

### GENUS 17. PYRISITIA. Butler,

Type P. Proterpia, Fabricius.

Frontwings more pointed at apex; disco-cellulars slightly arched.

Hindwings subquadrate, the outer margin exhibiting an angle between second and third median branches; first subcostal emitted at some distance before second; second subcostal and discoidal near together, reducing the upper disco-cellular to a very short oblique line; lower disco-cellular about eight times the length of upper and strongly arched.

Body as in preceding genus.

#### GENUS 18. LEPTOPHOBIA. Butler.

Type L. Elcone. Hewitson.

Frontwings pointed at apex; second subcostal emitted close to end of cell; third and fourth subcostals forming a very minute fork close to apex; upper discoidal nervure emitted from subcostal at some distance beyond end of cell; median branches emitted at nearly equal distances from each other.

Hindwings subtriangular or rounded; upper disco-cellular very oblique, about a quarter the length of lower which is

much less oblique and slightly waved.

Body hairy; palpi long, hairy; antennæ long, slender, with flattened club.

#### GENUS 19. GONEPTERYX. Leach.

Type G. Rhamni, Linnaus.

Frontwings pointed at apex, costa waved and suddenly arched to apex: outer margin excavated: second branch of subcostal emitted some distance before end of cell; third and fourth forming a fork before apex; upper disco-cellular less than half the length of lower, perpendicular; lower disco-cellular strongly arched.

Hindwings with conical caudate projection at end of second median branch; lower disco-cellular about five times the length of upper and angulated.

Body stout, hairy; palpi moderately long; antennæ short, thick with gradually formed club.

### GENUS 20. AMYNTHIA. Swainson.

Type A. Swainsonia. Swainson.

Frontwings. Costa not waved; apex not always pointed (A. Leuchiana); second branch of subcostal emitted before end of cell, or at the end (A. Marrala); upper discocellular more than half the length of lower and oblique; median branches emitted at more nearly equal distances.

Hindwings with more or less prominent caudate projection at end of third median brauch; branches of subcostal nervure and discoidal nervure at about equal distances apart at their origins; upper disco-cellular rather shorter than lower, oblique; lower disco-cellular angulated.

Body stout, less hairy.

GENUS 21. DERCAS. Doubleday.

Type D. Verhuellii, Van der Hoeven.

Frontwings. Outer margin nearly straight; cell shorter and stouter; second branch of subcostal emitted just before end of cell; upper disco-cellular about one third the length of lower, perpendicular and slightly arched; lower disco-cellular strongly arched; second and third median branches emitted near together.

Hindwings with more or less caudate projection at end of third median branch; the subcostal branches and discoidal nervure emitted near together; the lower discocellular about four times the length of upper, and subangulated.

Body stout, rather hairy; palpi rather short; antennæ short, slender.

GENUS 22. KRICOGONIA. Reakirt.

Type K. Lyside. Godart.

Frontwings. Cell long as in *Conepterye*; upper discocellular rather shorter than lower, the two together forming

an irregular arch.

Hindwings rounded; the first and second subcostal branches at some distance apart; the upper disco-cellular less than half the length of lower, the latter slightly angulated, the two together forming a continuous irregular oblique line.

Body hairy; palpi moderately long; antenna slender.

GENUS 23. MEGONOSTOMA. Reakirt.

Type M. Casonia. Stoll.

Frontwings generally terminating in a sharp point at apex; neuration as in *Gonepterge*, excepting that the second subcostal is emitted just before the end of the cell.

Hindwings rounded; the costal nervure terminating at the middle of costa; the upper disco-cellular one third the length of lower, the latter strongly angulated, both oblique.

Body densely clothed with hair; palpi moderately long; antennae short, rather slender with gradually formed club.

GENUS 24. CALLIDRYAS. Boisdural.

Type C. Eubule. Linnaus.

Frontwings. Second subcostal emitted just before end of cell; upper discoidal nervure emitted from subcostal at some distance beyond cell; upper disco-cellular more than half the length of lower, oblique; lower disco-cellular strongly arched.

Hindwings rounded, generally with an impressed oval spot in the male, above basal half of subcostal nervure, for the reception of hairy patch on inner margin of frontwings; upper disco-cellular two thirds the length of lower, oblique and slightly curved: lower disco-cellular oblique, angulated; second and third median branches emitted somewhat near together.

Body densely clothed with hair; palpi and antennae rather short, the latter somewhat slender with gradually

formed club.

GENUS 25. PTYCHOPTERYX. Wallengren.

Type P. Bohemani. Wallengren.

Frontwings, with brush of long hairs at base of inner margin in males,\* first and second subcostals emitted at some distance before the end of the cell; upper discoidal nervure springing from cell and not from subcostal nervure as in preceding genera.

Hindwings. The second subcostal and discoidal nervures springing almost from the same place, so as to reduce upper disco-cellular to a point: a straight and much thickened fold runs through the cell and between discoidal and third

median branches to outer margin.

Body hairy; palpi short, densely hairy beneath; antennæ rather short with bluntly formed club. (Compiled from Wallengren's description.)

GENUS 26. TERACOLUS. Swainson.

Type T. Subfasciata. Swainson.

Frontwings subtriangular; first and second subcostals emitted near together and some distance before end of cell; upper discoidal nervure emitted at end of cell and close to subcostal; upper disco-cellular rather shorter than lower, the two together forming a perpendicular biangulated line; median branches at nearly equal distances apart.

Hindwings rounded; the second subcostal and discoidal nervures emitted together, reducing the upper disco-cellular to a point; lower disco-cellular long, oblique, angulated; median branches emitted at about equal distances apart.

Body clothed with short hairs; palpi and antennæ longer and more slender than in preceding genera, the latter with flattened club.

<sup>\*</sup> Wallengren says that it is at base of hindwings, but I am inclined to think this an error, in Callidryas it is on the frontwings.

#### GENUS 27. IXIAS. Hübner.

Type I. Pyrene. Cramer.

Frontwings subtriangular; neuration almost as in *Teracolus* but first discoidal nervure emitted beyond end of cell; upper disco-cellular half the length of lower, both strongly arched: also in all species except *T. Ænippe*, Cr., and *Marianne*, the second subcostal is nearer to the end of cell and the upper discoidal branches from the subcostal.

Hindwings rounded; upper disco-cellular one third or one fourth the length of lower, which is strongly angulated, both oblique.

Body covered with very short hair; palpi moderately long, rather hairy; antennæ slender with slightly compressed club.

### GENUS 28. HEBOMOIA. Hübner.

Type H. Glaucippe. Linneus.

Frontwings elongated; first and second subcostals emitted near together before end of cell; third and fourth subcostals forming a short fork before apex; first discoidal nervure springing from upper disco-cellular; upper disco-cellular rather shorter than lower, angulated and arched; lower disco-cellular strongly arched.

Hindwings. Upper disco-cellular about half the length of lower and slightly arched, lower disco-cellular waved, the two together forming an irregular oblique line: a thickened longitudinal central streak from base to outer margin as in Pruchopterys.

Body robust, clothed with long straggling hairs; palpi short, bristly; antennae moderately long, the club ill-

defined, merely a thickening of the shank.

#### GENUS 29. HELIOCHROMA. Butler.

Type H. Idiotica. Butler.

Frontwings subtriangular; first subcostal emitted at some distance before end of cell, second at a great distance beyond and near to third and fourth which form a short fork to apex; first discoidal nervure springing from upper disco-cellular which is about two thirds the length of lower and oblique; lower disco-cellular oblique, slightly arched.

Hindwings. Upper disco-cellular rather more than half the length of lower, the two together forming a slightly angulated oblique line; no thickened longitudinal streak, but the normal fold rather prominent.

Body moderately robust, clothed with straggling hair; (palpi moderately long but thick and broad, antenne moderately slender with gradually formed club.)\*

GENUS 30. PIERIS. Boisdural.

Type P. Amathonte. Cramer.

Frontwings more or less elongated, subtriangular; third and fourth subcostals forming a very short fork before apex; first discoidal emitted from subcostal at some distance beyond end of cell; upper disco-cellular half the length of lower, oblique; lower disco-cellular nearly perpendicular and feebly angulated.

Hindwings subpyriform; upper disco-cellular more than half the length of lower, very oblique, the lower slightly waved, nearly perpendicular or very oblique, and almost in a line with upper: no thickened central streak as in *Hebomoia*.

Body less robust, hairy; palpi moderately long, slender, hairy beneath; antennae long, with short, gradually formed club.

This group will include *P. Amathonte*, *P. Amacyllis*, and allies, which probably represent the unmodified type of the genus.

GENUS 31. APPIAS. Hübner.

Type A. Zelmira. Cramer.

Frontwings subtriangular, sometimes elongated; first discoidal nervure springing from subcostal at some distance beyond cell; disco-cellulars of nearly equal length, angulated, nearly perpendicular.

Hindwings. Upper disco-cellular more than half the

length of lower.

Body moderately robust, hairy; palpi long, lairy beneath; antennae long, slender with gradually formed club; abdomen of male with tuft of hair below the anal valves.

GENUS 32. PHRISSURA. Butler.

Type P. Cynis. Hewitson.

Frontwings. Second subcostal emitted at end of cell;

<sup>\*</sup> I feel doubtful about these characters, a specimen of an allied species in Mr. Saunders's Collection has bristling palpi and slender antenne with flattened club: these characters, however, may vary as in Nepheronia.

upper disco-cellular about half the length of lower and strongly arched; lower disco-cellular oblique, feebly arched.

Hundwings. Upper disco-cellular nearly half the length of lower, oblique, feebly arched; lower disco-cellular less oblique, feebly arched; second and third median branches emitted rather near together.

Body moderately slender, clothed with short silky hair; palpi slender, slightly hairy beneath; antennae short, with flattened club; abdomen of type with tuft of hair below anal valves.

GENUS 33. DAPTONOURA. Butler.

Type D. Flippantha. Fabricius.

Frontwings elongated; first and second subcostals emitted near together before end of cell; disco-cellulars of nearly equal length, the upper one very oblique, the lower perpendicular.

Hindwings. Disco-cellulars of nearly equal length.

Body rather slender, clothed with short hairs; palpi long, hairy beneath; antenna long, slender, club impressed; abdomen of male with a pair of strong anal hooks.

GENUS 34. BELENOIS. Hübner.

Type B. Calypso. Drnry.

Frontwings scarcely elongated; cell broader; lower discocellular oblique.

Hindwings rounded; the cell broader and shorter than in preceding genus: upper disco-cellular shorter, lower less oblique.

Body more robust, more hairy; palpi shorter, more hairy; antennæ slender with compressed club: abdomen of male with a pair of very minute anal hooks, sometimes obsolete.

GENUS 35. PONTIA. Fabricius.

Type A. Cratagi. Linneus.

Frontwings subtriangular or subpyriform; second subcostal emitted close to end of cell; disco-cellulars more or less oblique and varying in relative length; median branches generally emitted at nearly equal distances from each other.

Hindwings pyriform; cell more elongate than in preceding genus; disco-cellulars oblique, the upper nearly equal to lower in type (not in *Cocytia*); the same also applies to the distances between median branches.

Body more slender than in *Pinacopterys*, less hairy; palpi densely hairy; antenne rather shorter, with com-

pressed club: abdomen without anal hooks.

The above genus is very difficult to characterize on account of slight variations in neuration between closely allied species, especially between A. Notha and A. Cocytia (formerly referred to the genus Euterpe) which doubtless belong to this group.

GENUS 36, METAPORIA. Butler.

Type M. Agathon. G. R. Gray.

Frontwings subpyriform; second subcostal not so near end of cell as in *Aporia*: upper disco-cellular oblique, nearly as long as lower which is perpendicular and feebly arched; second and third median branches rather near together.

Hindwings subpyriform; the cell broader, less pointed; disco-cellulars of equal length, the upper oblique, the lower

less so

Body moderately hairy; palpi slender, hairy beneath; antennae with distinct flattened club.

GENUS 37. SYNCHLOE. Hübner.

Type S. Callidice. Esper.

Frontwings subtriaugular; upper disco-cellular about half the length of lower, oblique; lower disco-cellular angulated, nearly perpendicular.

Hindwings. Upper disco-cellular half the length of lower, oblique; lower disco-cellular much less oblique, and more

or less arched.

Body hairy; palpi slender, hairy beneath; antennæ with more or less distinct flattened club.

The *Monuste* group of Tropical America with *S. Brassicæ* and allies will come into this genus.

GENUS 38. TATOCHILA. Butler.

Type T. Autodycc. Hübner.

Frontwings. Upper disco-cellular one third the length of lower, oblique, lower slightly arched, nearly perpendicular.

Hindwings. First subcostal very much arched, second and third just beyond and near together; upper disco-cellular about one fifth the length of lower, very oblique; lower disco-cellular less oblique and feebly angulated.

Body very hairy: palpi slender, hairy beneath: antennæ long, slender with well defined flattened club.

GENUS 39. HERP, ENIA. Butler.

Type H. Tritogenia. Klug.

Frontwings. First and second subcostals emitted near together at some distance before end of cell; upper discocellular very short, perpendicular; lower long, receding. arched; second and third median branches near together.

Hindwings. First subcostal slightly arched; upper discocellular about a quarter the length of lower, oblique; lower disco-cellular nearly perpendicular, arched.

Body slender; palpi hairy, short; antennæ short, slender. with compressed club.

GENUS 40. PHULIA. Herrich-Schäffer.

Type P. Nymphula. Gav.

As I have had no opportunity of examining a specimen of the type, I am unable to decide upon the position of the above genus; Dr. Herrich-Schäffer says that it is allied to Anthocharis, (by which I suppose he means Euchloë) but vein 8 is wanting. (I suppose he counts upwards as Wallengren does), in which case the missing vein would be a subcostal branch; upper disco-cellular wanting; the only parallel instance that I know of is in the male of Dismorphia Medora.

The venation is carelessly done in Gay's figure, so that nothing can be made of it.

### DIVISION 3. Five subcostal nervules in frontwings.

GENUS 41. ERONIA. Boisdural.

Type E. Cleodora. Hübner.

Frontwings broad, subtriangular, with strongly arched costa; first and second subcostals emitted near together at some distance before end of cell, the third at a great distance beyond end of cell, the fourth and fifth forming a short fork to apex: upper disco-cellular about one third the length of lower, both arched and forming a nearly perpendicular line: median branches at nearly equal distances apart.

Hindwings. Upper disco-cellular about one fourth the length of lower, oblique; the lower disco-cellular also oblique, strongly angulated and curved; second and third

median branches rather near together.

Body robust, metathorax clothed with long silky hairs; palpi short, densely hairy; antenne moderately long, rather thick, with gradually formed club.

#### GENUS 42. NEPHERONIA. Butler.

Type N. Idotca. Boisduval.

Frontwings occasionally subpyriform (*Pharis* and *Chione*); upper disco-cellular strongly excavated, more than half the length of lower which is oblique and slightly angulated.

Hindwings. Upper disco-cellular more than half the length of lower, very oblique: lower disco-cellular rather less oblique and waved; second and third median branches wide apart.

Body moderately robust, slightly hairy; palpi and antennae short, the latter slender with gradually formed compressed club, sometimes flattened.

## GENUS 43. EROESSA. Doubleday.

Type E. Chilensis. Guérin.

Frontwings subtriangular; upper disco-cellular slightly excavated, more than half the length of lower which is oblique, but not angulated.

Hindwings subpyriform. Upper disco-cellular a quarter the length of lower, very oblique; lower less oblique not waved.

Body robust, hairy: palpi very hairy; antennae short, slender, with flattened club.

### GENUS 44. EUCHLOË, Hübner.

Type E. Belia. Cramer.

Frontwings elongate triangular, subpyriform or falcated; second subcostal emitted at or beyond end of cell; the fourth and fifth forming a very short fork at apex; first discoidal emitted from subcostal beyond end of cell; upper disco-cellular about a quarter the length of lower, nearly perpendicular; lower strongly angulated.

Hindwings sometimes pyriform, sometimes with apex cut off obliquely; cell elongate, pointed; upper discocellular about half the length of lower and more oblique; lower slightly angulated; second and third median branches emitted rather near together.

Body clothed with short hair; palpi long hairy; antennae short, slender, with flattened club.

#### GENUS 45. ZEGRIS. Rambur.

Type Z. Eupheme. Esper.

Frontwings with excavated inner margin; upper discocellular oblique, slanting inwards, about a quarter the length of lower which is arched.

Hindwings with apex obliquely cut off; upper discocellular about one-sixth the length of lower and oblique; lower strongly angulated.

Body hairy; palpi short, very hairy; antennæ short, slender, with flaftened club.

#### GENUS 46. LEPTOSIA. Hübner.

Type L. Lathyri. Hübner.

Frontwings elongate, subtriangular, with rounded apex: the five subcostal nervures emitted beyond end of cell; first discoidal emitted from end of cell, which is very short; upper disco-cellular oblique, arched; lower straight, perpendicular.

Hindwings subpyriform; cell very short; subcostal branches emitted together on a foot-stalk; upper discocellular about four times as long as lower and oblique; lower disco-cellular perpendicular.

Body very slender, scarcely hairy; palpi short, slightly hairy; antennae short, slender, with flattened club.

#### GENUS 47. DISMORPHIA. Hübner.

Type D. Laja. Cramer.

Frontwings clongated, sometimes falcated: the first subcostal emitted before, at, or beyond end of cell, the other four always beyond; the first discoidal emitted from end of cell which is long; upper disco-cellular very short, generally perpendicular, lower very long strongly angulated, sometimes slanting outwards and sometimes inwards.

Hindwings oblong-ovate, broader in male than female; cell elongate, nervures placed as in preceding genus.

Body long, slender; palpi very small; antennæ long with gradually formed club.

#### GENUS 48. MOSCHONEURA. Butler.

Type M. Methymna. Godart.

Frontwings elongate subpyriform; the five subcostals emitted beyond end of cell; first discoidal emitted a long way beyond end of cell, before, opposite to, or after the

emission of first subcostal branch; upper disco-cellular absent, lower elongated, oblique, waved.

Hindwings oblong, ovate; disco-cellulars of nearly equal length, placed at a sharp angle to each other, the lower disco-cellular being nearly in a line with median nervure.

Body as in Dismorphia.

### TABULAR ARRANGEMENT OF GENERA.

#### DIVISION 1. Three subcostal nervules in frontwings.

- A. Upper disco-cellular of frontwings longer than lower. [Prioneris.
  - \* Costa of frontwings serrated in male; frontwings pointed.

    \* Costa not serrated, wings with rounded apex. Pereute.
- B. Upper disco-cellular of frontwings equal to lower. Delius.
- C. Upper disco-cellular of frontwings shorter than lower. Leadonta.

### DIVISION 2. Four subcostal nervules in frontwings.

- A. One discoidal nervure in frontwings.
  - † Upper disco-cellular of frontwings reduced to a point.
  - \* Subcostal branches of hindwings emitted close together.
  - \*\* Subcostal branches of hindwings emitted far apart. Nychitona.
  - †† Upper disco-cellular of frontwings half the length of lower.
  - $\dagger$  Upper disco-cellular of frontwings one third the length of lower. *Mylothris*.
- B. Two discoidal nervures in frontwings; first discoidal nervure of frontwings uniting with subcostal.
  - † Abdominal valves of males armed with powerful hooks.
  - †† Abdominal valves of males sometimes armed with minute hooks. Belenois.
  - ††† A tuft of hair beneath abdominal valves in males.
    - Upper disco-cellular of hindwings half the length of lower.
  - \*\* Upper disco-cellular of hindwings more than half the length of lower.

    \*\* Upper disco-cellular of hindwings more than half the length of lower.
  - †††† Abdominal valves simple.
    - \* Upper disco-cellular of frontwings scarcely longer than lower.
    - a. Subcostal nervules of hindwings wide apart.
    - b. Upper disco-cellular of hindwings equal to lower. Euterpe.
    - c. Upper disco-cellular of hindwings much shorter than lower. Pyrisitia,
  - a.a. Subcostal nervules of hindwings near together. Terius.
  - a.a.a. Subcostal nervules of hindwings on a short footstalk.

Sphwnogona,

- a.a.a. Subcostal nervules of hindwings on a long footstalk. Leucidia.
  - \*\* Upper disco-cellular of frontwings rather shorter than lower.
    Metanoria.
  - \*\*\* Upper disco-cellular of frontwings more than half the length of lower.
  - A silky patch, generally hairy, beneath inner margin of frontwings in males. "Callidryns."
  - b. No patch of hairs beneath frontwings of males. Amyuthia.
    - \*\*\* Upper disco-cellular of frontwings half the length of lower.

      a. Second subcostal of frontwings emitted at end of cell.
    - Second subcostal of frontwings emitted at end of cell.
       Calusticia.
  - a.a. Second subcostal of frontwings emitted before end of cell.
    b. Upper disco-cellular of hindwings one third to one fourth
  - length of lower. Irias.
  - c. Upper disco-cellular of hindwings half the length of lower.
     d. Upper disco-cellular of hindwings more than half the length
  - of lower. Pieris.

    \*\*\*\*\* Upper disco-cellular of frontwings less than half the length
    - of lower.

      a. Antenna moderately robust with gradually formed club.
    - Upper disco-cellular of hindwings one fifth the length of lower. Government.
    - Upper disco-cellular of hindwings less than half the length of lower. Kriconomia.
    - Upper disco-cellular of hindwings one third the length of lower. Megonostoma.
  - a.a. Antenna long with flattened club.
    - b. Palpi rather short, very hairy. Pontin.
  - c. Palpi very long, hairy beneath. Tatochila.
  - \*\*\*\*\*\*\* Upper disco-cellular of frontwings one third the length of lower.
    - Second subcostal nervule of frontwings emitted at or after the end of cell. Colius.
    - a.a. Second subcostal nervule of frontwings emitted before end of cell.
    - Median branches of frontwings at nearly equal distances apart. Leptophobia.
    - Second and third median branches of frontwings near together, Deccas.
    - Upper disco-cellular of frontwings about one sixth the length of lower, Herpenia.
- C. Two discoidal nervures in frontwings; first discoidal nervure of frontwings not uniting with subcostal, but emitted at end of cell.
  - Upper disco-cellular of frontwings scarcely longer than lower. *Euchcira*.
  - Upper disco-cellular of frontwings rather shorter than lower.
    - a. Upper disco-cellular of hindwings reduced to a point.
  - Upper disco-cellular of hindwings about half the length of lower. Hebomoia.

- \*\*\* Upper disco-cellular of frontwings more than half the length of lower.
- a. Second subcostal nervule emitted before end of cell.
- b. Second subcostal nervule emitted at a great distance beyond end of cell. Heliochronus.
- \*\*\*\*\* Upper disco-cellular of frontwings one third the length of lower. Hesperocharis,

### DIVISION 3. Five subcostal nervules in frontwings.

- A. Second subcostal of frontwings emitted before or at end of cell.
  - Upper disco-cellular of frontwings more than half the length of lower.
  - Upper disco-cellular of hindwings more than half the length of lower. Nepheronia.
  - Upper disco-cellular of hindwings a quarter the length of lower. Erocssa.
  - Upper disco-cellular of frontwings one third the length of lower. Eronia.
  - \*\*\* Upper disco-cellular of frontwings a quarter the length of lower. Euchlof.
- B. Second subcostal of frontwings emitted beyond end of cell, antenne short.
  - First subcostal of frontwings emitted before end of cell.
  - \*\* First subcostal of frontwings emitted after end of cell.
- First subcostal of frontwings generally, second always emitted beyond end of cell, antenne long.
  - \* First discoidal of frontwings emitted from end of cell.
  - \*\* First discoidal of frontwings emitted from subcostal.

    \*\*Maschmenza

I have not inserted *Pseudopontia* in this paper, because t believe it to be a moth.

# EXPLANATION OF PLATES.

	1.					2.						
Fig.					Pa	age.	Fig.				Pa	ige.
1.	Prioneris		-	-		39	1.	Dercas -	-	-	-	45
2.	Delias -		-	-		40	2.	Amynthia	-	-	-	45
3.	Perente -		-	-		40	3.	Gonepteryx	-	-	-	45
4.	Leodonta -			-		40	4.	Meyonustoma	-	-	-	46
5.	Elodina -		-	-		40	5.	Kricogoniu	-	-	-	46
6.	Nychitomi -		-	-		41	6.	Teracolus	-	-	-	47
7.	Nathalis -		-	-		41	7.	Lrias -		-	-	48
8.	Mylotheris -		-	-		42	S.	Callidryas	-	-	-	46
9.	Euterpe -		-	-		42	9.	Hebomoia	-	-	-	48
10.	Colias -		-	-		43						
11.	Leucidia -			-		43						
12	Leptophobia		-	-		45						
13.	Sphænogona		-	-		44						
14.	Pyrisitia -		-	-		4.4						
15.	Terias -		-			44						
	3.							4.				
Fig.					P	age.	Fig.				Pa	ige.
1.	Heliochroma	-	-			48	1.	Eronia -		-		52
2.	Catasticta	-	-		-	43	2.	Nepheronia	-	-	-	53
3.	Daptonoura	-			-	50	3.	Eroessa .	-	-	-	53
4.	Pieris -				-	49	4.	Euchloë -	-		-	53
5.	Appias -	-	-		~	49	5.	Zegris -	-	-	-	54
6.	Phrissura		-		-	49	6.	Leptosia -		-	-	54
7.	Tatochila	-	-		-	51	7, 8	8. Dismorphia	-		-	54
8.	Belenois-	_	-			50	9.	Moschoneura	-	-	-	54
9.	Pontia -	-			-	50	10.	Hesperocharis	-	-	-	34
10.	Metaporia		-		-	51		-				
11.	Herpania				-	52						
12.	Suncldoë					51						

On the Generic Nomenclature of Lepidoptera: by G. R. Скотси, M.A., Assistant Librarian in the University of Cambridge.\*

Notwithstanding the "Rules for Zoological Nomenclature" sanctioned by the authority of the British Association. it would not seem that any perceptible improvement has taken place. The admirable paper of Mr. Kirby, which recently appeared in the Journal of the Linnean Society (Vol. x. p. 494), shows at least that in the diurnal Lepidoptera nothing has been done worthy the name. Kirby, unfortunately, merely points out certain inconsistencies without suggesting any remedies or consistent plan of action. Some time ago, when I thought that a "Nomenclator Zoologicus" could be accomplished by one person. I prepared chronological studies of the orders of animals, with a view of verifying the dates given in Agassiz and in other works. I am now more than ever convinced, that only by building up, as it were, in this way from the foundation, can a consistent Nomenclature be obtained. The laws of priority are of course assented to tacitly by all, but not applied. I have attempted to exhibit this action chronologically, which effectually prevents a large number of errors of omission, &c., and calls immediate attention to the errors that yet remain undetected. A genus, as far as I understand it, for the purposes of nomenclature, consists of but one species—its type: round this Linnaus may have grouped 250 species, we only two or none—the principle is still the same. No genus can be considered defined until a type is indicated, for characters must vary with our knowledge in every case; but when the type of a genus is not indicated, I am not inclined to cut the knot by the simple process of taking the first species, but to trace the genus historically until it has a type given to it. The application of this principle to the Lepidoptera as far as the year 1816 will now be seen. It brings about no doubt some startling changes; but it appears to me that even these would be better than the diversity of opinion that now prevails. Let us take one of the most vexed ques-

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<sup>\*</sup> Communicated to the Linnean Society by Professor Alfred Newton, F.L.S., and read on the 6th April, 1871.

tions, the name of our blue butterflies. They were comprised by Linneus in the sub-genus Plebeias and P. argus was selected by Cuvier as the typical species in 1799; the same group was variously styled Cupido (Schrank, 1801), Polyommatus (Latr., 1805), Lycaena (Fahr., 1807), Zephyrus (Dalm., 1816); all four of which names are therefore coextensive (though not co-typical), and if revived, which appears to me undesirable, they must be quoted from some later author.

- 1735. Linneus (Syst. Nat. Ed. i.) grouped all our Lepidoptera in the genus *Papilio* (typ. P. Machaon, *Cuc.* 1799).
- 1748. Linnaus (Syst. Nat. ed. vi.) separated the nocturnal species under the title *Phaloma*.
- 1758. Limneus (Syst. Nat. ed. x.) separated the crepuscular species under the title *Sphinx*. He also subdivided his genus *Papilio* into six sub-genera, whose names have been accepted, and, as I conceive rightly; for Linneus always used them sub-generically, speaking of *Papilio Dunane Brassica*. These are
  - a. Equites. This has been always (except by Geoffroy and Schrank) considered the typical stirps.
    - B. Heliconius, type H. Psidii, Lam. (1801).
    - c. Danaus, type D. Brassica, Cur. (1799).
    - D. Nymphalis, type N. atalanta, Lam. (1801).
    - E. Plebeius, type P. argus, Cur. (1799).
  - F. Barbarus, a heterogeneous group which has not since been accepted.
  - The type of the genus *Sphinx* is, according to Lamarck (1801), *S. conrolruli*. Latreille (1805), figured *S. atropos* as its type, which was separated by Ochsenheimer (1816).
  - The genus *Phalana* is also sub-divided into seven sub-genera:—
    - A. Bombyr. Cuvier (1799) and Lamarck (1801) divide this into three sections, whose types are B. paronia, B. dispar, and B. mori; Schrank

(1802), in sub-dividing the genus, leaves *B. mori* and *versicolor* as its types. Hence we are justified in retaining *B. mori* as the type of Bombyx.

B. Noctua, N. sponsa, Lam. (1801). Cuvier and Latreille (1805) concur in this; but afterwards Latreille (1810) selected N. promuba as his type.

- c. Geometra, Ph. syringaria, Lam. (1801) Latr. This was regarded by Fabricius (1775) as the typical section, and hence took the name Phalæna; in this he was followed by Cuvier, Lamarck, Latreille, &c.
- p. Tortrix, T. viridana, Lam. (1801). Fabricius (1775) dropped this name, and used instead Pyralis (nec Linn.) In this he was followed by several others, but was at last overruled.
- E. *Pyralis*, P. forficalis, *Cuv.* (1799). This subgenus is sunk altogether by Fabricius. Cuvier and Latreille however revive it.
- F. Tinca, T. pellionella, Geoffr. (1762), Lam. (1801). This, as a name known to the ancients, has been pretty generally adopted.
- G. Alucita, A. pentadactylus, Geoffr., Cuv., Lam. Applied by Linneus to all the cleft-winged species. Geoffroy (1762) re-created the genus under the title Pterophorus (typ. pentadactylus); Fabricius adopted this, and gave the name Alucita to group of Tineæ, since called Adela by Latreille. We are bound in consistency to reject Pterophorus and adopt Alucita (typ. pentadactylus), employing Latreille's name, Orncodes, for A. hexadactylus.
- 1762. E. Geoffroy (Hist. Abrég. vol. ii.) adopts five genera, only without types. He introduces a new name, *Pterophorus*, for Alucita.
- 1767. Linnaeus (Syst. Nat. Ed. xii.) adds the sub-genus Attaeus. (typ. Ph. pavonia, Cuv., Lam.)
- 1775. Fabricius (Syst. Ent.) adds a new sub-genus under Papilio, viz., Parnassius (typ. Apollo, Cuv., Latr.). He also adds three genera to the Nocturni.
  - 140. Sesia, S. stellatarum, *Scop.* (1777), *Cuv.* (1799). Lamarck (1801) gives S. fuciformis as his type.

- 141. Zygana, Z. filipendulæ, Scop., Cur.
- 143. Hepialus, H. humuli, Cur., Lam.
- 148. || Alucita, A. degeerella, Lam. (1801). This group of Tineæ was called Adela by Latreille (1796).
- Noctua, Phalama, Tinca, are raised to the rank of genera; Pyralis (nec. Linn.) is used for Tortrix; Pterophorus (Geoffr.) is used for Alucita.
- 1777. Scopoli (Introd. ad. Hist. Nat.) forms only one really new genus, the rest being the old ones re-named.
  - 160. Spectrum = Sphinx. 161. Macroglossa (typ. stellatarum)=Sesia F. 163. Anthrocera=Zygæna.
  - 162. Trochilium, S. apiformis, Latr. (1805). This consists of the smaller species of Sesia, Fab., which Latreille took for the types of the genus. If, however, with Cuvier and Lamarck, we regard the large species as the true types, Scopoli's name comes into play.
  - He divides the Diurni into six purely artificial genera, which have no types or limits.
    - 171. Argyreus. 172. Argus. 173. Pterourus. 173. Battus. 174. Graphium. 175. Ascia.
- 1793. Fabricius (Ent. Syst.) adds two sub-genera to Papilio.

Satyrus, S. megera, *Latr.* (1805). This is the species commonly called "le Satyre," and hence evidently the true type of the genus.

Festivus, P. Plexippus, *Latr.* (1805). Latreille, not liking this name, has called the genus Danaida, Fabricius (1807) calls it Euplæa.

187. Hesperia, H. malvæ, Cur. (1799) Lam. This genus is really a new name for Plebeius L., and the true genus Hesperia is due to Cuvier and Lamarck.

192. Cossus, C. ligniperda.

195. Hybkea.

- 1796. Latreille (Préc. des Charact.) adds a few genera, but unfortunately gives no species:—
  - Aglossa, A. pinguinalis, Latr. (1802).
  - Ypsolopha [Hyps-].
  - 16. Yponomeuta [Hypon-], Tin. evonymella, Latr. (1802).
    - 17. Oecophora, Tin. sulphurella, Latr. (1802).
    - 18. Adela, Aluc. reaumurella, Latr. (1802).
    - 20. Orneodes, Pter. hexadactylus.
- 1798. Fabricius (Suppl. Ent. Syst.) adds a few genera:— Lithosia, L. quadra, *Latr.* (1810).

Galleria, Phal. cereana, L.

Phycis, Tin. boletella and spissicella. Haworth (1812) retained this genus for *T. spissicella*; Ochsenheimer (1810) for *T. boletella*.

Crambus=Pyralis, Linn. Latreille, in sub-dividing the group (1810), retains this for C. carneus. Leach (1815) gives C. pincti, pascuorum, &c. He also adopts the genus Ypsolophus from Latreille [-lopha].

- 1799. Cuvier (Tabl. elem.) forms no new genera, but gives precision to the old ones by characterizing them and indicating their types.
  - Illiger (Käf. Preuss.) in a list of genera at the end of the volume, indicates the genus Adela under the new name, Nemophora (Hoffm.).
- 1801. Lamarck (Syst. Anim. s. Vert.) also fails to create new genera, but indicates the types, &c., with even more exactitude than Cuvier.
  - Schrank (Fauna Boica, ii. 1) distributes the species into 17 genera, one of which only is new. The Diurni, however, are re-modelled as follows:—
    - 197. Erynnis=Hesperia, Fab. 198. Pieris=Papilio, Heliconius, Danaus. 199. Maniola=Satyrus. 200. Papilio=Nymphalis. 201. Cupido=Plebeius, L. 212. Psyche, no type.
  - 1 differ very much from Mr. Kirby in my estimate of the value of this book; he appears to me merely to have re-named the sections then in use.

1802. Schrank (Fauna, Boica ii. 2) constitutes a large number of genera at the expense of Bombyx, &c.

Saturnia=Attacus, L.

|| Laria, L. dispar, Leach, 1815; salicis and nivosa, Hüb., 1816.

Arctia, A. fuliginosa, Hüb., 1816.

Lasiocampa, L. quercus, Leach, 1815; pini, Hüb., 1816.

Cerura, C. vinula.

Drepana.

Pœcilia, P. runica, Hüb., 1816.

Cucullia, C. verbasci and scrophularia , Hüb., 1816.

oro. Hadena, N. saponaria and capsincola, *Hüb.*, 1816.

Catocala, C. fraxini *L., Hüb.*, 1816. Polypogon, P. barbalis and tentaculalis.

Nymphula, N. potamogalis, Hüb., 1816.

Scopula, S. paludalis and dentalis.

Hypena, H. palpalis and rostralis, Hüb., 1816. Agrotera, A. nemoralis.

Pyrausta, P. cingulalis, Hüb., 1816.

Setina=Lithosia F. [Hübner (1816) takes up the genus for Tin. ephemerella.]

Nemapogon, Leach, 4 sp. (1815).

Setella, T. marmorella. Harpella, T. proboscidella.

Plutella, T. xvlostella.

Stigmella, T. rosella (De G.).

Pyralis (typ. pinguinalis) = Aglossa, Latr.

Latreille (Hist. Nat. ii.) gives an analysis of his genera. The following are new:—

Smerinthus, S. tiliae, Latr. (1805).

Stygia, S. australis, Latr. (1805).

Herminia=Polypogon, Schr.

Latreille (1805) figures H. rentilabris; (1810) he gives H. barbatns as his type; Leach (1815) gives H. proboscidalis.

Botys, B. purpuraria, *Latr.*, (1810). Cerostoma, Ypsol. dorsatus, *Fab*.

He also uses Sesia (Fabr. p.) for S. apiformis [=Tro-chilium Scop.].

1803. Laspeyres (Neue Schr. Nat. Gesell. iv.).

Platypteryx, P. falcataria, *Latr.* (1810),=Drepana, *Schr.* 

1803. Lewin (Prod. Ent.) creates two new genera for Australian species:—

Phalanoides, P. glycinæ; Cryptophasa, C. irrorata, &c.\*

1805. Latreille (Hist. Nat. xiv.) in describing the species at length, makes but little addition to his previous sketch. The sub-genera of Papilio are elevated to generic rank, and their names in some cases changed:—

Danaida (typ. plexippus) = Festivus, Fab.; Pieris (Schrank) = Danaus, L.; Polyonmatus = Plebeius, L.

Zeuzera, Z. æsculi. Erroneously spelt Zeuzera; but he writes Zeuzera in the *Dictionnaire*, which is contemporaneous, if not earlier.

1806. Dumeril (Zool. Anal.) forms one new genus:-

Heteropterus, H. speculum, *Rott*. The type of this is gathered from his later works.

- 1807. Fabricius (Ill. Mag. d. Ent. vi.) has given, through Illiger, a synopsis of the new genera from his unpublished work entitled, "Systema Glossatorm." It fortunately extends only to the end of the Crepuscularia, and contains 49 genera. Two or three species are generally cited as types; and he has re-named all his old sub-genera, irrespective of the fact that they had been raised to generic rank by Latreille.
  - 1. Urania, P. Leilus, Latr. (1810).
  - 2. Amathusia, P. Phidippus.
  - 4. Zelima, P. Pylades.
  - 5. Morpho, P. Achilles, Westw. (1850).
  - 6. Cethosia, P. Cydippe, Latr. (1810).
  - 7. Castnia, P. Icarus, Latr. (1810).

<sup>\*</sup> When several species are cited, without distinguishing the type, I have cited the first, appending &c. to it.

- Euploea=Festivus, Fabr. Euploea, Boisd. (1832), typ. Eunice, &c.
  - 9. Apatura, P. Iris, Ochs. (1816).
  - 10. Limenitis, L. populi, Dalm. (1816).
- 11. Cynthia, C. cardui, *Horsf.* (1828), arsinoe, *Westw.* (1840).
  - 12. Vanessa = Nymphalis, L.
  - Biblis, P. Biblis; Didonis, Hüb. West. (1850).
  - Hipparchia=Satyrus, Fab.
  - 15. Neptis, (N. aceris, Horsf., Westw.)
  - 16. Brassolis, P. Sophoræ, Latr., Boisd.
- 17. Paphia, P. jasius, Ochs. (1816). Ochsenheimer re-named this Churaxes without reason.
  - 18. Melanitis, M. undularis, Horsf. (1828).
  - 19. Argynnis, P. Paphia, Latr. (1810).
- 20. Thats, P. Hypsipyle. Ochsenheimer has re-named this Zerguthin.
  - 21. Idea, P. Idea.
- 22. Doritis=Parnassius, Fab. Doritis, Hüb. (1816), typ. D. apollina.
- 23. Pontia=Danaus, L., Cur. Pontia, Boisd. (1836), P. nina, Cram.
  - 24. Colias, C. Rhamni, Latr. (1810).
  - 25. Haetera, P. Piera, Doub. (1846).
  - 26. Acraea, A. horta, Latr., Boisd.
  - 27. Mechanitis=Heliconius, L.
  - 28. Libythea, P. celtis, Latr. (1810).
  - 29. Melitæa, P. Athalia, Dalm. (1816).
  - 30. Helicopis, Hesp. cupido and gnidus.
  - 31.†Hesperia, (nec. Cur., Latr.)
  - 32. Lycana = Plebeius, L.
- Eryeina, E. lysippus, *Hüb.* (1816) = Riodina, Westw. (1850).
  - 34. Myrina, Hesp. alcides, God., Westir.
  - 35. Thecla, Th. betulæ, Dalm. (Aurotis).
  - 36. Nymphidium, N. earicae, Westw. (1850).
  - 37. Danis, Pap. Danis, Cram., Boisd.
  - 38. Emesis, Hesp. ovidius, Westw. (1850).

- 39. Thymele=Hesperia, Fab., Latr.
- 40. Helias, H. phalænoides, n. sp.
- 41. Pamphila, P. comma, Dalm. (1816) Hesperia.
- 42. Laothoe=Smerinthus, Latr.
- 45. Aegeria=Trochilium, Scop. (Sesia, Latr.)
- 46. Amata, Zyg. passalis and Cerbera.
- 48. Glaucopis, n. sp.
- 49. Procris, P. statices, Leach (1815).

Thus such names as Vanessa, Hipparchia, Doritis, Pontia, Mechanitis, Lycana, Thymele, Laothoe, Aegeria, ought to disappear altogether.

1808. Ochsenheimer (Schmett. ii.) forms four new genera.

|| Chimæra, Noct. chimæra, Hüb.

Atychia = Procris, Fab.

Syntomis = Amata, Fab. Thyris, Sph. fenestrina.

He says that Sesia should be spelt Sctia.

1809. Latreille (Gen. Crust. ii.) combines the new genera of Fabricius with each other, so as to produce great confusion.

Eurybia (Ill.), Pap. salome, Cram.

Aegocera, B. venulia, Cram.

|| Atychia, Sph. chimæra.

Aglaope, Zyg. infansta.

Callimorpha, C. dominula, Leach (1815).

Euplocamus, Tin. guttella, Latr. (1810).

- 1810. Haworth (Lep. Brit.) creates five new genera, unfortunately without indicating types.
  - 5. Apoda, Bomb. testudo.
  - 8. Falcaria = Drepana, Schr.
  - 9. Nudaria, B. munda.
  - 11. Phytometra.
  - 12. Hemigeometra=Catocala, Schr. = Noctua, Lam.
  - Ochsenheimer (Schmett. Bd. iii.) forms numerous genera in the Bombyces without indicating exact

1812.

types. He also re-names three of Schrank's genera.

- 2. Aglia, Sat. Tau.
- 3. Endromis, B. versicolora.
- 4. Harpyia=Cerura, Schr.
- 5. Notodonta, N. dromedarius, &c., Hüb. (1816).
- 11. Liparis=|| Laria, Schr. Typ. monacha et dispar, Germ. (1811).
  - 12. Orgyia, O. fascelina, Hüb. (1816).
  - Pygaera, P. Timon, H\"ab. (1816).
  - 14. Gastropacha = Lasiocampa, Schr.
- 15. Eyprepia=Arctia, Schr. Typ. E. cribrum, Germ. (1811).

These names are adopted and restricted by Hübner, and must bear his application.

- 1811. E. F. Germar. Systematis Glossatorum prodromus, Sect. I., II. 4to. Lips. This book was published after Ochsenheimer's third volume, which he cites on p. 26, and is a thoroughly careful book.
  - 9. Attacus (Linn.), Ph. Pavonia L. Linnaeus used this in a sub-generic sense only.
  - 10. Tachiptena, Bomb. tau, L.=Aglia, Ochs. (1810).
    - 11. Platypteryx (Lasp.), Ph. falcula, &c.
    - 13. Laspeyria, Ph. flexula.
    - 14. Scoliopteryx, C. libatrix.

Psylla||, Bomb. celsia, &c. This genus is utterly heterogeneous in its construction.

- 16. Eriogaster, B. lanestris, &c. The character given by him reaches its extreme in E. lanestris, which may therefore be regarded as his type.
  - 18. Arctornis—Arctia, Schr. (26 sp.)

#### Part II.

- 30. Callimorpha (Latr.), Ph. hera, dominula, &c.
- 32. Eyprepia (Ochs.), Ph. cribrum.

Liparis (Ochs.), L. monacha & dispar.

- 33. Penthophera, Bomb, morio, &c.
  - 34. Laria (Latr.), B. pudibunda, &c.

- 35. Notolophus, B. gonostigma et antiqua.
- 36. Pygaera (Ochs.), 6 sp.
- 37. Notodonta (Ochs.), 20 sp.
- 42. Pterostoma, B. palpina.
- 43. Cerura (Schr.), C. vinula, &c.
- 45. Stauropus, S. Fagi L.
- 45. Endromis (Ochs.), B. versicolor.
- 46. Lasiocampa (Ochs.), L. dumeti, &c., 12 sp.
- 49. Odonestis, B. pruni F. 50. Gastropacha (Ochs.), B. quercifolia, &c.
- II-mosth (I on Dait) continued to force your

Haworth (Lep. Brit.) continued to form new genera, but was preceded in many of them.

- 20. Fumaria=Psyche, Schr. p.
- 19. Anthophila, Phal. fabriciana L.
- 22. Palparia, Tin. caudella, &c.
- 23.†Phycis (nec. Ochs.), T. spissicella.
- 24. Scoparia, T. cembrella, &c.
- 25. Diurnea, T. fagella, &c.
- 26. Depressaria, T. Heraclella, &c.
- 27. Erminea=Hyponomeuta, Latr.
- 28. Capillaria=Adela, Latr.
- 29. Dasycerus=Oecophora, Latr.
- 30. Chelaria, Tin. conscriptella.
- 31. Gracillaria, T. hemidactylella, &c.
- 32. Porrectaria, T. ochrodactyla, &c.

Haworth (Trans. Ent. Soc. i.).

p. 340. Fumea pro Fumaria.

1814. Leach (Zool. Misc.) forms two new genera.

p. 37. Agarista, A picta, n. sp.

79. Ourapteryx, O sambucaria, L.

1815. Leach (Zool. Misc. ii.) adds a new genus. p. 25. Actias, Phal. luna, L.

> Leach (Edin. Encycl. ix.) gives a general system of Entomology.

- 419.†Colias, C. Hyale.
- 420. Gonepteryx, C. Rhamni = Colias, Fab., Latr.

436. Ino, Z. statices = Procris, Fab.

Dorvillia, B. versicolor=Endromis, Ochs.

456. Biston, G. prodromaria, &c.

459. Abraxas, G. grossulariata.

460. Bupalus, G. piniaria.

461. Hipparchus, G. papilionaria and prunata.

464. Cilix, Pl. compressa.

466. Simaethis, T. dentana.

467. Nola, P. palliolatus.

Phalena (typ. margaritaria), Geometra (typ. lunaria).

- 1816. (Ochsenheimer (Schmett. iv.) has formed a series of new genera among the Noctuidæ taken from Hübner. Their use must of course be settled by Hübner's Verzeichniss, published in the same year. He has often taken Hübner's sections for genera.
  - 6. Charaxes pro Paphia, Fab.
  - 11. Zerynthia pro Thais, Fab.
  - 15. Hecaerge pro Libythea, Fab.
  - The genera adopted from Hübner should stand in his name. The following are stirpes for Hübner, and cannot be retained at all:—Deilephila, Diphtera, Agrotis, Graphiphora, Amphipyra, Miselia, Polia, Xanthia, Cosmia, Xylena, Plusia, Heliothis, Erastria, Anthophila, Brephia, Euclidia.
    - 59. Apamea, and 62. Calyptra, are magazine creations of his own, and comprise several genera.
  - J. W. Dalman (K. Vet. Akad. Handl. 1816) formed the genera known to him upon more exact characters, and carefully indicated his types. He has re-named several genera that had become confused in their application.

Limenitis (Fab.), L. populi. Aglais (=Vanessa, Fab.), A. urticae. Argynnis (Fab.), A. adippe, Melitaa (Fab.), M. athalia. Amaryssus (=Papilio, L.), P. Machaon. Doritis (=Parnassius, F., Lat.), D. Apollo. Ganoris (=Danaus, L., Lat.), G. brassicae. Zephyrus (=Plebeius, L.). Hesperia

(Pamphila, Fab.), H. comma. Dilina (=Smerinthus, Lat.), O. Ocellata. Sphinx (L.) S. ligustri. Hemaris (=Sesia, Fab.), S. fuciformis. Sesia (=Trochilium, Scop.) S. apiformis, &c. Zygaena (Fab.), Z. filipendulæ. Aglaope (=Procris, Fab.) A. statices.

Zephyrus is sub-divided into three sub-genera.

A. Aurotis (=Thecla, Fab.), A. betule. B. Heodes, H. virgaurea. C. Cyaniris, (=Plebeius, L.), C. semiargus, Hüb.

# Descriptions of new Butterflies from Costa Rica: by Arthur G. Butler, F.L.S., F.Z.S.

The following are the principal novelties from the fine Collection recently brought from Cartago, Costa Rica, by Dr. van Patten; the *Heliconida* have still to be examined.

### RHOPALOCERA.

# FAMILY NYMPHALIDÆ. Swainson.

SUB-FAMILY SATYRINÆ. Bates.

DRUCINA, Gen. nov.

Affine *Pronophila* alis anticis longioribus, venis discocellularibus ramisque subcostalibus aliter dispositis.

Allied to *Pronophila*, but with the frontwings comparatively narrower and more elongated, first subcostal emitted towards end of cell, second just before end, third some distance beyond, fourth and fifth forming a long fork to apex; upper disco-cellular slanting obliquely inwards, lower strongly angulated outwards, the two together forming a biangulated oblique zigzag line; palpi long, the last joint slanting downwards. Type *D. Leonata*.

#### Drucina Leonata, sp. nov.

¿a. Alæ supra nigro-fuscæ, anticæ maculis sex submarginalibus increscentibus lacteis; posticæ duabus subapicalibus et fascia lata discali increscente, extrorsum sinuata ad marginem fere internum attingente, ferrugineo-fulva introrsum umbrosa; corpus nigrum, capite et collo fulvo maculatis; alæ anticæ subtus nigro-fuscæ, area apicali dilutiore cinereo-rorata, punctis tribus subapicalibus maculisque quatuor submarginalibus increscentibus albis; macula discoidali, altera pone cellam et tertia in nervulum secundum medianum sordide albidis; posticæ pallide cinereo fuscæ, venis nitide nigris; fascia lata media biangulata fusca; margine externo irregulariter fuscescente; ocellis

septem incompletis submarginalibus fuscis albo pupillatis:

corpus nigrescens: exp. alar. unc. 3, lin. 5.

ç. Simillima mari differt alis anticis supra dimidio apicali paululum dilutiori: nebula discoidali inconspicua, macula pone cellam, altera subtriangulari in nervulum secundum medianum et lunula venam inferiorem discocellularem transeunte lacteis; posticae nebula discoidali et fascia discali continuata ferrugineo-fulvis, strigis tribus diffusis pone cellam inter venas, albidis: exp. alar. unc. 3, lin. 11. Coll. Druce.

#### GENUS OXEOSCHISTUS. Butler.

Oxeoschistus Euriphyle, sp. nov.

Ake supra fusca, anticae puncto subcostali pone cellam maculisque quinque irregularibus increscentibus submarginalibus fulvis, primo geminato, remoto, quarto nigro pupillato; posticae fascia lata discali, introrsum recta extrorsum alternatim angulato-dentata ocellos septem nigros ferente, ad angulum ani umbrosa; ocellis secundo, tertio et septimo minimis, quinto maximo, quarto, quinto et sexto albo-pupillatis; lineola anali antemarginali fulva: corpus nigrum.

Alæ anticæ subtus pallidiores, area apicali cinereo et ferrugineo rorata; stria mediana et macula costali triangulari pone cellam, sordide albis; macula trifida subapicali extrorsum ocellis quatuor inconspicuis albis arcuatim cineta; maculis quatuor supernis majoribus increscentibus sed ochreis; puncto apicali, lunulisque duabus marginalibus ochreis; posticæ pallide fuscæ, stria irregulari cellam transerrante et striola ad cellæ finem albidis, fascia superna multo dilutiore, extrorsum albida, in medio fuscæcente; ocellis majoribus, pallide cinetis, albo pupillatis; striga marginali ochraceo rorata: corpus fuscum, palpis pallidis: exp. alar. unc. 2, lin. 6. Coll. Druce.

#### SUB-FAMILY BRASSOLINÆ. Bates.

GENUS DYNASTOR.

Dynastor Stygianus, sp. nov.

 $\varsigma$ . Affinis *D. Dario*, Fabr., duplo major, alis anticis apice rotundato; margine externo fere recto; maculis longioribus:

subtus multo pallidioribus grisescentibus, maculis multo majoribus, apice anticarum fusco, macula ocellari bipupillata; stria ocellum discalem introrsum cingente ad marginem externum (haud ad apicem) attingente; maculis ocellaribus posticarum majoribus a margine magis remotis, tertia extrorsum profunde indentata; macula una discoidea nigra, macula subcostali obsoleta: exp. alar. unc. 5, lin. 1. Coll. Druce.

#### GENUS CALIGO.

### Caligo Bubocula, sp. nov.

d. Alæ supra picæ, anticæ area apicali cellæ discoidalis discoque nitide cærulescentibus; maculis tribus inconspicuis subapicalibus nigris oblique positis, punctisque duobus subcostalibus albis; posticæ fascia decrescente submarginali a costa ad ramum tertium medianum continuata, cæruleæ; marginibus apicali et abdominali ochraceis; plaga oblongo ovali ochracea, interna; corpus fuscum.

Alae subtus pallide fuscae, fascia lata media brunneofusca sericeo-albo utrinque cincta lineisque nigris scripta, anticae maculis tribus punctisque duobus ocellaribus apicalibus; basi et disco nigro striatis lineisque duabus submarginalibus nigro-fuscis; posticae nigro reticulatae, plaga costali ocellari brunnea; ocello magno mediano cinereo, ochreo-cincto; corpus fuscum: exp. alar. unc. 5, lin. 3. Coll. Druce.

Intermediate between *C. Oberon* and *C. Reeresii* in its under-surface coloration; two females in the British Museum from Mexico are probably referable to this species.

#### SUB-FAMILY MORPHINÆ. Butler,

GENUS MORPHO. Fabricius.

Morpho Aquarius, sp. nor.

Affinis M. Theseo differt alis brevioribus, area basali supra distincte carulescente; anticæ margine externo paululum arcuato; fascia lata submarginali regulari nigra; maculis ochreis majoribus valde distinctis; striga alarum omnium duplici marginali fulva continua; posticæ caudis hand quadratis; alæ subtus dilutiores; anticæ striola

inconspicua et fasciola lata discoideis cinereis; plaga pone cellam costali pyramidata cinerea striolam fuscam includente; maculis submarginalibus diffusis subtriangularibus majoribus albidis; posticæ area basali quadrata; fascia pone eam cinerea multo magis regulari: exp. alar. unc. 5, lin. 3. Coll. Druce.

Three examples, differing from the nearly allied M. These us in the above characters

### Morpho Marinita, sp. nov.

Affinis M. Achilli, supra fusca; antica fascia lata pone medium nitide caerulea in costam albo diffuse quadrimaculata et extrorsum puncta quatuor alba inter venas discoidales et ramos medianos gerente, apud costam intus subito angulata, extrorsum maculam subcostalem albam evitante; seriebus duabus macularum, introrsum bisinuatarum, albarum, submarginalium, extrorsum nigro-limitatis; ciliis albo variis; posticæ areola disco-apicali dilutiore; strigis duabus (apud apicem maculiformibus undatis), interiore decrescente fusco-albida, exteriore rufescente, extrorsum nigro limitatis; ciliis inter venas albo binotatis: corpus fuscum.

 $\hat{A}$ lae subtus fere velut in M. Achille, fasciolis discoideis cinereis angustis; ocellis anguste cinereo-albido zonatis:

exp. alar. unc. 5, lin. 4.

2. Simillima mari, differt supra maculis costalibus et discalibus magis distinctis, submarginalibus minus distinctis; fascia carulea angustiore maculam magnam subcostalem includente et a stria undata disco-cellulari interrupta; posticæ areola disco-apicali paululum cærulescente: alæ subtus velut in mare: exp. alar. unc. 6. Coll. Druce.

A remarkable new species, having no blue band in the

hindwings.

### Morpho Limpida, sp. nov.

¿. Affinis præcedenti; anticæ area basali paululum cærulescente; fascia cærulea latiore utrinque cyaneo diffuse limitata et maculam subcostalem includente; maculis discalibus valde inconspicuis; serie interiore macularum submarginali obsoleta; posticæ area discali venisque brunneoochraceis; fascia a vena subcostali ad ramum secundum medianum pyramidata carulea et macula ejusdem coloris a runo solum separata; strigis submarginalibus minus conspicuis augustioribus brunneo-ochreis: corpus fuscum.

Alae posticae subtus area statim pone ocellos in venas dilutiore; fascia submarginali magis rufescente: exp. alar. unc. 5. lin. 5. Coll. Druce.

This species, though nearly allied to the preceding, differs in so many particulars that I have felt obliged to distinguish it.

### Morpho Hydorina, sp. nov.

- 3. Affinis M. Marinita major, anticae fascia carulea latiore, serie interiore macularum submarginalium minus conspicua, maculis lunatis haud bisinuatis; posticae latiores colore simillimae sed fascia lata vel tenui carulea ad ramum secundum medianum sarpius continuata: alae subtus fasciolis discoideis magis conspicuis, fasciis marginalibus albis cinereo tinctis et paululum latioribus; ocellis late albido zonatis; exp. alar. unc. 5, lin. 6.
- 2. Simillima *M. Marinitæ* 2 differt supra seriebus macularum submarginalium latius separatis, magis conspicuis; maculis discalibus albis majoribus; posticae areola discoapicali magis carulescente; alæ subtus fasciis omnibus albidis multo latioribus cinereo-tinctis; posticae area pone ocellos dilutiore; exp. alar. unc. 6. Coll. Druce.

#### SUB-FAMILY NYMPHALINÆ, Bates.

GENUS EPIPHILE. Doubleday.

### Epiphile Grandis, sp. nov.

§. Alæ supra nigro-picææ; aniicæ fascia lata obliqua fulva, introrsum inter ramos sæcundum et tertium medianos sinuata; maculis tribus subapicalibus quarum media alba, aliis ferrugineis, prima in costam albo rorata; posticæ costa et apice late fulvis, margine externo anguste ferruginoso: corpus nigrum capite brunmeo tincto.

Alæ subtus pallide rufo-fuscæ, anticæ fascia superna dilutiore; striola disco-cellulari nigra; area interno-mediana diffuse nigra; area apicali cinereo rorata, macula subapicali alba et ocellis duobus in serie eadem obliqua nigris inequalibus; posticæ macula cuneiformi costali et striga angulata subcostali, argenteis; serie ocellorem subseptem brunneorum valde indistinctorum cinereo diffuse cinctorum: corpus pallide rufo-fuscum: exp. alar. unc. 3, lin 3. Coll. Druce,

The largest species of *Epiphile* yet described, and in colour somewhat resembling the insect figured by Mr. Hewitson as the female of *E. Orca*.

#### GENUS HETEROCHROA. Boisdural.

### Heterochroa Demialba, sp. nor.

Alæ supra fusæ nigro fasciatæ; anticæ area apicali albo-maculata, maculis quatuor pone cellam;; prima costali trifida, secunda et tertia longioribus subcostalibus, quarta discali punctiformi; maculis sex serie undulata discalibus, prima et ultima parvis; puncto apud basin rami tertii mediani albido, puncto subapicali albo et duobus cinereis; ciliis apicalibus albis; maculis sex submarginalibus lineolisque subquinque marginalibus albis; posticæ ciliis albis; corpus nigrum, capite albo-punctato.

Alæ subtus fusca, area basali fasciis subquatuor cinereis nigro limitatis; anticæ maculis supernis albis et una pone medium interna; posticæ area apicali fasciis tribus obscurioribus fuscis internedia latissina; margine late albido, lineis duabus nigrescentibus in venas a strigis fulvis interruptis: corpus cinereo-albidum, palpis albis, lateraliter nigro-lineatis: exp. alar. unc. 2, lin. 11. Coll. Druce.

Unlike any other species of the genus.

#### GENUS PHYCIODES Hübner.

#### Phyciodes Fulviplaga, sp. nor.

Alæ supra nigro-fuscæ, anticæ fulvo-irroratæ; punctis duobus discoideis duobus pallidioribus subapicalibus, duobus squamosis medianis, uno submarginali et uno subanali, plaga quadrifida pone cellam subcostali et macula semicirculari apud marginis externi medium, fulvis; posticæ fulvo sparsæ; margine late nigro; ciliis lunulisque submarginalibus analibus, fulvis: corpus nigrum.

Alæ subtus-fuscæ; anticæ area mediana nigra; punctis duobus basali-discoideis, striola discoidali, puncto disco-

cellulari, plaga pone cellam, macula discali, lunulaque submarginali fulvis, maculis tribus pone plagam albis; lunulis tribus subapicalibus pallide fuscis vel cinereis extrorsum nigro limitatis; posticæ ocellis discalibus, fascia valde irregulari media, characteribus basalibus et linea lunulata submarginali cinereis; margine externo brunneo: corpus cinereum: exp. alar. unc. 1, lin. 3. ('oll. Druce.

GENUS ERESIA. Roisdural.

Ercsia Dismorphina, sp. nov.

Alæ anticæ supra nigro-fuscæ striga duplici mediana, a vena mediana persecta, brunneo squamosa; macula discoidea cum striga connecta et duabus inæqualibus inter ramos primum et secundum medianos ochreo-albidis: quatuor pone cellam lineatis, quinta in serie eadem obliqua, discali; tribus subapicalibus quarum duabus superioribus subcostalibus, quinque submarginalibus in serie eadem angulata ochreo albidis; striolis apicalibus squamosis albidis; ciliis albo-punctatis; posticie fulvoferrugineae, basi, costa ad apicem et margine externo nigris; maculis submarginalibus fulvis, ciliis albo-punctatis: corpus nigrum, capite albo-punctato, antennis albidis ad basin nigris:

Alæ subtus multo pallidioribus, maculis anticarum flavidis elongatis, apice flavido; area interno-discoidea ferruginosa; posticae costa ferruginosa ad basin alba; fascia lata subcostali nigra; maculis submarginalibus majoribus albis; area centrali albida; corpus nigrum, palpis pedibusque albo lineatis, aliter velut supra: exp. alar. unc. 2, lin. 4. Coll Dreue

### FAMILY ERYCINIDÆ.

SUB-FAMILY EURYGONINÆ. Bates.

GENUS METHONELLA. Westwood.

Methonella Chrysomela, sp. nov.

Alæ supra nigro-fuscæ area magna subrotundata media ad basin attingente rufo-aurantiaca: corpus fuscum, abdomine rufo-cingulato:

Alæ subtus nigro-fuscæ, area media multo pallidiore; anticæ fascia lata discali alba, a ramo tertio mediano submarginali, pyramidata; posticæ seriebus macularum submarginalium duabus, interna flavescente, externa maculisæqualibus albis: corpus thorace nigro, abdomine aurantiaco: exp. alar. unc. 1, lin. 10. Coll. Druce.

A fine species, which has long been known from Bogota.

#### SUB-FAMILY ERYCINIDÆ. Bates.

GENUS PANDEMOS. Hübner.

Pandemos Nymphidioides, sp. nov.

¿. Alae anticae brunneo fuscae areis media et marginali obscurioribus; areola subanali ochracea; maculis tribus discoideis et duabus submedianis fuscis cinereo-cinctis; maculis tribus mediis in serie obliqua, subhyalinis, albis, media multo majore; posticae flavo-albidae area basali fumato brunnea striola disco-cellulari fusca, venis subcostalibus fulvis, maculis tribus apicalibus fumato-brunneis; puncto minuto subanali nigro, fulvo cincto; ciliis fuscis: corpus brunneo-fuscum: alae subtus albae, anticae fascia postmedia et area tota apicali fusco squamosis; macula interna fulva; posticae macula subcostali et puncto discoideo fulvis; litura subcostali et maculis tribus subapicalibus, fuscis; corpus albidum, ano fuscescente: exp. alar. unc. 2, lin. 4. Coll. Druce.

# GENUS LEMONIAS. Westwood. Lemonias Adelina, sp. nov.

Affinissima L. Æmulio differt supra lineolis anticarum tenuioribus ceruleis, area aurantiaca latiore ad basin posticarum fere attingente: alæ anticæ subtus fuscæ, cingulis subseptem basalibus pallide cæruleis; fascia pone medium valde interrupta nigrescente, introusum cæruleo-albido limitata; striola discali pone eam squamosa alba; litura undata submarginali albida; maculis quinque marginalibus nigrofuscis, primo et quarto minoribus albo-cinctis, area anali alba, fusco maculata; posticæ albæ, area basali pallide cærulea, striolis tribus subcostalibus nigris: ciliis aurantiacis: corpus thorace nigro, pedibus cinereis, abdomine albido a latere aurantiaco: exp. alar. unc. 1, lin. 6. Coll. Druce.

### FAMILY PAPILIONIDÆ. Leach.

#### SUB-FAMILY PIERINÆ (Swainson). Bates.

GENUS EUTERPE. Swainson,

Euterpe Diamorphites, sp. nov.

§. Simillima Eresiæ Dismorphinæ, major; anticæ nigræ, striis duabus internis rufo-ferrugineis, superiore abbreviata, squamosa; fasciola subinterrupta discoidea, maculis sex inæqualibus (duabus ultimis ferrugineo tinetis), tribus subapicalibus in serie obliqua et quatuor submarginali analibus, albidis; posticæ rufo-ferrugineæ; margine costali, vena costali, plaga magua subcostali, venis subcostali et mediana ad basin, et margine lato externo nigris; punctis sex submarginalibus flavis rufo tinetis; puncto basali albo; corpus thorace nigro capite albo-punctato, antemis fulvis ad basin nigris; abdomine fusco: alæ subtus maculis majoribus, anticæ puncto basali albo; posticæ costa basali nigro-fusca: corpus thorace albo-punctato, abdomine lateraliter flavo-maculato; exp. alar. unc. 3, lin. 2. Coll. Druce.

Resembles Ercsia Dismorphina, but is considerably

larger: allied to E. Eurytele.

#### GENUS CATASTICTA. Butler.

Catasticta Actinotis, sp. noc.

Alæ supra nigræ, anticæ macula magna media quadrifida sulphurea: corpus nigrum: alæ subtus pallidiores cinereo variegatæ; anticæ macula diffusa subapicali albida, serie undulata discali macularum flavarum decrescentium et altera striolarum inter venas marginalium; punctis duobus pone cellam flavis; posticæ macula obliqua medio-costali flava albido-cineta et duabus infra eam squamosis albidis; striola discoidali, aliis abdominalibus, punctis duobus discocellularibus, serie discali et punctis aliis marginalibus triangularibus, omnibus flavis; maculis duabus basalibus coccineis; corpus nigro-fuscum, striga ventrali albida: exp. alar. unc. 2, lin. 2. Coll. Druce.

This remarkable species is not nearly allied to any described species, it apparently belongs to the Sistemans group, and mimics Actinote No. Q.

### GENUS MYLOTHRIS. Hübner. Mylothris Alethina, sp. nov.

2. Affinis M. Malenkæ differt dimidio apicali maculis distincte flavis; macula nigra fasciae superioris magna et distincta; fascia subapicali maculari, magis elongata; posticae absque fascia media fusca: exp. alar. unc. 3, lin. 1. Coll. Druce.

# GENUS CALLIDRYAS. Boisdural. Callidryas Intermedia, sp. nov.

Affinis C. Virgini et Rurine, magnitudine Neoeypridis; ale maris supra flavæ virgula minuta disco-cellulari nigra; feminæ velut in C. Virgine albæ, posticæ autem maculis subsex marginalibus inæqualibus rubris: exp. alar.  $\mathcal{J}$ , unc.  $\mathcal{J}$ ,  $\mathcal{Q}$ , unc.  $\mathcal{J}$ , lin. 1.

The male of this species is very like that of *C. Neocypris* but may be at once distinguished by its having a short black line at end of frontwing cell; the female resembles that of *C. Virgo*, but has the hindwing marginal red patches of *C. Ruvina*.

# GENUS DISMORPHIA. Hübner,

# Dismorphia Cordillera. Felder.

Q. Alæ anticæ supra nigræ, plaga magna ad basin attingente et a vena mediana et ramo suo primo persecta ferruginosa extrorsum hyalino-albicante; seriebus duabus macularum hyalino-albidarum obliquis; striola ejusdem coloris subanali; maculis quatuor apicalibus flavo-albis; posticæ ferruginose areis media et apicali subhyalinis; apice late nigro introrsum profunde quinque sinuato, venis quoque apicalibus nigris; margine externo-anali anguste nigro; fascia subcostali-discoidea et fasciola pone eam nigris, maculis tribus apicalibus albis; corpus thorace nigro, capite albo-punctato, antennis flavis ad basin nigris; abdomine fusco: alæ subtus fere velut supra, posticæ autem, maculis decem submarginalibus quarum sex analibus cinereo-albidis: corpus thorace nigro albo-punctato, abdomine fusco, lineis duabus ventralibus flavidis: exp. alar. unc. 3, lin. 3. Coll. Druce.

A good deal like *Ercsia Dismorphina*, but larger, and with all the frontwing markings better defined.

#### Dismorphia Sororna, sp. nov.

- A. Affinissima D. Cordilleræ: anticæ supra margine externo minus angulato, nigro-fuscae; strigula discoidea et altera interno-media, maculis tribus postcellularibus quarum intermedia obsoleta, duabus inter cellam et apicem subcostalibus et duabus magnis inaequalibus discalibus, una inter ramos primum et secundum medianos elongata et quatuor parvis apicalibus, hyalino flavis; posticae dimidio costali sericeo albo argenteo-cincto; dimidio anali apud apicem nigra, maculis tribus albis et una ferruginea, area anali ferruginea, margine late nigro; corpus thorace nigro, capite albo punctato, antennis albidis clava flava, basi nigra, abdomine fusco ad basin cinereo-maculato: alæ anticae dimidio interno albo, argenteo-cincto; posticae dimidio costali fusco albo-maculato, anali ferrugineo, margine late nigro maculis tribus geminatis submarginalibus albis: corpus thorace nigro albo-punctato, abdomine fusco lineis duabus ventralibus flavidis: exp. alar. unc. 3, lin. 2.
- §. Fere velut in D. Cordillera §, differt anticis plaga a vena mediana persecta valde indistincta cinerea; serie interna obliqua, macula secunda et quarta obsoletis et aliis introrsum obscuratis; posticae obscurius ferrugineae fasciis latioribus nigris venisque apicalibus latius nigris: anticae subtus fere velut supra, posticae maculis solum tribus flavidis subapicalibus: exp. alar. unc. 3, lin. 3. Coll. Druce.

Nearly resembles Euterpe Dismorphites.

# Dismorphia Hagaresa, sp. nov.

Q. Alæ anticæ nigræ, maculis duabus medio-costalibus uma discoidali, uma postcellulari inter venas discoidales, tribus subapicalibus (prima quarum trifida) in serie obliqua una oblongo-ovali inter ramos secundum et tertium medianos punctisque tribus apicalibus, omnibus flavis; stria interno-basali rufa; posticæ rufæ, fascia subcostali, apice margine externo et venis apicalibus flavis: corpus fuscum, antennis nigris: alæ subtus pallidiores, anticæ area apicali rufescente, interna fuscescente; macula altera pone cellam et discali, flavis; aliter velut supra: exp. alar. unc. 2, lin. 8. Coll. Druce.

Somewhat resembles the female of *D. Sororna*, but is considerably smaller, and evidently belongs to another section of the genus near *D. Eunoc.* 

### Dismorphia Lubina, sp. nov.

¿. Alæ supra nigerrimæ; anticæ plaga cuneiformi interna, maculis tribus increscentibus in serie obliqua postmediis et duabus subapicalibus minoribus (superiore bifida) albis; posticæ dimidio costali sericeo hyalino, ad basin et apicem late fusco obscurato; fascia lata alba a vena interna ad aream sericeam currente: corpus nigrum:

Alæ subtus margaritaceo-argenteæ griseo maculatæ, maculis supernis albis; anticæ plaga magna subpiriformi mediana alba; striga late arcuata subcostali nitide cæruleo-argentea: corpus albidum: exp. alar. unc. 2, lin. 6. Coll. Druce.

### Dismorphia Viridifascia, sp. nov.

- Q. Ake supra nigræ, anticæ valde acuminatæ; lineolis tribus postmediis et punctis tribus subapicalibus oblique positis, sordide flavidis; posticæ dimidio costali fusco introrsum late chalybeo-limitato; fascia pyramidata pallide virescente a margine abdominali fere ad apicem currente: corpus nigrum, abdomine fuscescente, antennis nigris: subtus roseo-plumbeæ, flavo hic illuc sparsæ; anticæ striola medio-costali et macula a ramo secundo subcostali diviso sulphureo-flavis; fascia lata aream mediam pyriformatam cingente, chalybea; corpus cinereum, abdomine linea ventrali sulphureo-flavo: exp. alar. unc. 2, lin. 7.
- 3. Alæ supra nigro-fuscæ; anticæ stria anali-interna, macula bifida ante medium (a vena subcostali persecta) altera majore ovali statim pone cellam et tertia pyriformi inter ramos secundum et tertium medianos, albidis; maculis tribus squamosis subapicalibus, valde oblique positis, albidis; posticæ costa et fascia lata continuata angulata albida (i.e., area permagna quadrata basali, costam includente, a fascia lata subcostali fusca interrupta, albida); margine abdominali dilute fusco: corpus nigro-cinereum: anticæ subtus nigro-fuscae: area interna albida; apice fuscoplumbea vel pallide sericeo-fusca introrsum albo late limitata; maculis supernis mediis, duabus superioribus in costam connectis; posticae sericeo-fuscae argenteo hic illuc irroratæ, macula subcostali apud basin, fascia valde irregulari media et macula medio-discali argenteo-albidis fulvo irroratis: corpus cinereo-albidum: exp. alar. unc. 2, lin. 8. Coll. Druce.

Allied to D. Nemesis and Cinerescens.

#### SUB-FAMILY PAPILIONINE. Bates.

GENUS PAPILIO. Linneus.

Papilio Orabilis, sp. nov.

Alæ supra sulphureo-albæ, anticæ fasciola lata submedia cella medium transerrante, in costam latiore, nigra; area apicali et margine externo late nigris: maculis subquatuor, quarum duabus mediis solum distinctis, pone cellam transversalibus sulphureo-albis; posticae area anali et margine externo late nigris: fasciola trifida, bisinuata apud marginem analem coccinea; macula bifida triangulari subanali flavida, lunulis duabus flavidis et tribus cæruleis submarginalibus; cauda flavido-acuminata: corpus nigrum cinereo hirtum, abdomine lateraliter flavido striato: alæ subtus virescentes; anticae macula basali et costa, nigris; fasciola lata superna longiore cuneiformi acuminata, acumine squamosa; fascia decrescente aream externo-apicalem introrsum limitante: hac fusco grisea a venis interrupta extrersum nigrescente, maculas supernas includente; postica fascia lata subapicali nigra, a costa ad aream nigram externam attingente; area externa introrsum piceo-tincta a venis nigris persecta; lineolis tribus brunneis angulatis et squamis nonnullis caruleo-albidis submarginalibus, macula alba lunulisque duabus coccineis albo-roratis subanalibus; margine abdominali late piceo-nigro extrorsum albido hirto; cauda albo terminata; corpus nigrum; exp. alar. unc. 4, Coll. Druce.

The finest *Papilio* in the Collection, and allied to *P. Servillei* and *P. Salvini*.

# Papilio Lætitiu, sp. nov.

¿. Alæ supra nigerrimæ; anticæ fasciola introrsum diffusa discoidali ochrea, striolis angustissimis costalibus, fascia macularum septem angulata, maculis tribus superioribus statim pone cellam oblique positis, aliis transversalibus discalibus maculisque novem parvis hunatis submarginalibus, omnibus ochreis; posticæ fascia postmedia a venis in maculas novem divisa, extrorsum quoque maculis bene separatis, lineolis septem submarginalibus lunatis squamisque nonnullis sparsis discalibus ochreis; cillis albidis: corpus nigrum, capite tegulisque ochreo-

punctatis, abdomine lateraliter piceo: alse anticae subtus, area apicali fusca, maculis quatuor superioribus submarginalibus obsoletis; fasciola discoidali latiore, striolis costalibus latioribus a venis solum separatis; aliter velut supra; posticae dimidio basali fusca, maculis fasciae postmedianae extrorsum rubro-notatis; lineolis submarginalibus rubris; exp. alar. unc. 4, lin. 6.

§. Similis mari, major, supra maculis fasciarum mediarum minoribus pallidioribus magis ovalibus; anticæ fasciola discoidali maculisque pone cellam obsoletis; posticæ interspatio discali latiore, squamis discalibus cærulescentibus, maculis anali-submarginalibus rufescentibus: alæ subtus fasciis mediis paullo magis arcuatis; anticæ fasciola lata cellulari; posticæ lunulis submarginalibus majoribus, aliter velut in mare: exp. alar. unc. 4, lin. 6—7. Coll. Druce.

Closely allied to *P. Phacton*, but without tails to hindwings and with narrower bands.

### Papilio Vulneratus, sp. nov.

♂. Affinis præcedenti, supra maculis omnibus duplo minoribus; anticæ fasciola discoidali et maculis pone cellam obsoletis; posticæ serie macularum discalium multo magis arcnata: anticæ subtus fere velut in ♀ specei præcedentis, posticæ macula solum una subanali ochreoalbida rubro tincta, aliis omnibus parvis rubris: exp. alar. unc. 4, lin. 8. Coll. Druce.

Comes near P. Victorinus (P. Helleri, Felder).

### Papilio Clusoculis, sp. nov.

Alæ supra nigræ, anticæ macula rotundata media a ramis medianis persecta, albida; posticæ plaga quinquefida magna postmedia coccinea cellæ finem tegente; maculis duabus elongatis internis squamosis coccineis; macula apicali lineolisque ciliaribus albis; corpus nigrum, dimidio anali abdominis lateraliter roseo quadrimaculato; alæ subtus pallidiores anticæ macula rotundata media bifida; posticæ fuscæ, area externa nigræscente, maculis tribus ovalibus postmediis et quarta parva subanali roseis; maculis sæx subhunatis submarginalibus coccineis; puncto apicali albo; maculis duabus basalibus coccineis; corpus

thorace nigro coccineo-maculato, abdomine punctis octo, in serie duplici ventrali, albis: exp. alar. unc. 3, lin. 4. Coll. Druce.

The above species should certainly belong to a distinct genus from P. Latitia and allies, since the males of that group have the frontwing costa strongly serrated as in the genus Prioacris amongst the Picrina. If it be thought advisable to separate P. Latitia and allies from Papilio, I would suggest the name Pyrrhosticta for that group. I confess my inability to account for the reluctance of Entomologists to split up this unwieldy genus. P. Clusoculis is allied to P. Hippason.

#### FAMILY HESPERIDÆ. Leach.

GENUS ERYCIDES. Hübner.

Erycides Vida, sp. nov.

Persimilis *E. Uraniæ* differt anticis maculis nullis hyalinis, sed dimidio apicali fusco immaculata: exp. alar. unc. 2, lin. 5. Coll. Druce.

GENUS CARYSTUS. Hübner.

Carystus Gemmatus, sp. nov.

Alæ supra picæe; corpus nigrescens; alæ anticæ subtus dimidio apicali multo pallidiore; posticæ nigrescentes; punctis tribus pone cellam nitide cæruleis; macula internomedia elongata et quatuor in serie arcuata discali obscure coccineis: corpus nigro-fuscum: exp. alar. unc. 2, lin. 2. Coll. Druce.

Allied to no species that I have seen.

#### HETEROCERA.

### FAMILY ZYGÆNIDÆ. Leach.

GENUS EUCHROMIA. Hübner.

Euchromia Scintillans, sp. nov.

Alæ supra nigerrimæ, anticæ ad basin nitide virescentes; fasciola postmedia obliqua ciliisque coccineis; macula pone cellam indistincta certo situ cærulescente; posticæ margine externo coccineo: corpus nitide viridum, thorace nigro bifasciato, antennis nigris: alæ subtus nigræ, anticæ area interna cinereo fuscescente; area basali maculisque duabus pone cellam nitide viridibus; fascia media coccinea latiore quam supra; ciliis coccineis; posticæ nitide virides; costa, areola apicali et fascia submarginali decrescente nigris; margine externo coccineo: corpus viridum pedibus viridibus tarsis nigrescentibus, anticis autem coxis et femoribus niveis; antennis nigris: exp. alar. unc. 1, lin. 10. Coll. E. W. Janson.

Allied to *E. fulgida*, but very distinct; it belongs to the group *Automolis* of Walker.

# FAMILY LITHOSIIDÆ. Stephens.

GENUS DIOPTIS. Hübner.

Dioptis Ithomcina, sp. nov.

Alæ supra hyalinæ venis marginibusque nigro-cinereis; anticæ macula magna postmedia subovali alba utrinque nigro-cinereo limitata; punctis duobus subapicalibus maculisque duabus parvis anali-submarginalibus, albis; corpus cinereo-fuscum, thorace albido hirto: alæ subtus velut supra: corpus cinereum, abdomine albo: exp. alar. unc. 1, lin. 3. Coll. E. W. Janson.

Near no species with which I am acquainted.

### Dioptis Noctiluces, sp. nov.

Alæ supra cinereo-nigrescentes, anticæ striola duplici subcostali et plaga pyriformi interno-mediana, basalibus, macula magna media subovali, duabus subapicalibus et tertia disco-anali, minoribus, hyalino-albidis; posticæ sub-hyalinæ, margine omni late fuscescente: corpus cinereum, tegulis aurantiacis: alæ subtus velut supra: corpus cinereum, coxis albidis, abdomine flavescente: exp. alar. unc. 1. lin. 2. Coll. E. W. Janson.

More nearly allied to the preceding than to anything else, but very distinct even from that species.

GENUS CHRYSAUGE. Hübner.

Chrysauge Lutescens, sp. nov.

Alæ supra subhyalinæ pallide ochraceæ venis ochreis; anticæ costa et area apicali intronsum sinuata pallide nigrofuscis; maculis duabus subapicalibus, superiore quadruplo majore irregulari, albis; posticæ margine externo venisque discalibus late nigro-fuscescentibus, maculis tribus rotundatis inter venas submarginalibus albis: corpus, antennis, capite, tegulisque nigris, his albo maculatis; thorace et abdominis basi ochraceo; abdomine fuscescente lateraliter sordide ochraceo: alæ subtus velut supra, corpus thorace fusco albido lineato, proboscide ochrac; abdomine sordide ochraceo: exp. alar. unc. 2, lin. 1. Coll. E. W. Janson.

Nearest to C. Repanda of Walker.

### FAMILY ARCTIIDÆ. Leach.

GENUS PERICOPIS. Hübner.

Pericopis Irenides, sp. nor.

Persimilis *P. angulosæ*, anticæ autem area basali nigra fasciola costali et fascia submediana longiore fulvo-ferrugineis; femina fasciis duabus macularum flavarum per medium abrupte nigro interruptis, interiore haud ferrugineo tincta, exteriore magis obliqua: alæ subtus fere ut in

 $P.\ angulosa:$  exp. alar.  ${\mathcal E}$  , unc. 3, lin. 1;  ${\mathfrak P},$  unc. 3, lin. 4. Coll. E. W. Janson.

Allied to *P. angulosa* and probably an imitation of *Tith-orea Irene* or an allied species.

#### Pericopis Leonina, sp. nov.

Alæ anticæ velut in *P. Indecisa* sed paullo fulvidiores; posticæ fulvæ nigro venatæ; costa cinereo-fusca, margine externo late nigro, albo sexpunctato; corpus, thorace fusco flavo maculato, abdomine fulvo linea dorsali et fascia laterali, fuscis; anticis subtus areis basali et interno fulvis nigro-venatis, area media nigra; fascia lata irregulari media flava nigro interrupta; area apicali fusca; fascia sub-apicali obliqua flava; punctis septem submarginalibus albis; posticæ velut supra, punctis autem septem submarginalibus cæruleo-albis; corpus fuscum, thorace flavo maculato, abdomine lateraliter flavo bifasciato, fascia superiore tenuiore liminibus aurantiacis: exp. alar unc. 3, lin. 1. Coll. E. W. Janson.

Allied to P. subquttata and P. indeciso.

### FAMILY TORTRICIDÆ. Guenee.

GENUS ATTERIA. Walker.

\* Atteria Leopardina, sp. nor.

Q. Alæ supra cupreo aurantiacæ; anticæ chalybeonigro maculatæ, serie punctorum ejusdem coloris margini fere paralleli; marginibus costali et externo lacteis, regulariter chalybeo-nigro sæpenumero fasciolatis; posticæ hic illuc chalybeo-nigro maculatæ, marginibus externo et interno regulariter maculatis; corpus cupreo aurantiacum chalybeo-nigro fasciatum, capite albido, palpis cærulescentibus.

Alæ subtus maculis minoribus, aliter fere velut supra: corpus chalybeo-nigrum collo anoque aurantiacis; abdomine flavo quadri-fasciolato: exp. alar. unc. 1, lin. 6. Coll. E. W. Janson.

<sup>\*</sup> The following species from New Granada has been kindly lent to me for description by Mr. Janson.

### Atteria Volcanica, sp. nov.

σ. Alæ supra sericeo-aurantiacæ; anticæ tertiis apicali et costali nigris argenteo-albo fasciolatis, fasciolis septem costalibus ante aream apicalem, transversalibus, regulariter positis, octava et nona introrsum conjunctis; decima, undecima et duodecima quoque conjunctis et furcatis, punctis inter eas ejusdem coloris marginalibus; posticæ macula triplici apicali et quinque parvis marginalibus nigris; ciliis nigro, albo et aurantiaco variis: corpus aurantiacum, capite tegulisque sordide albidis, nigro-notatis; alæ et corpus subtus velut supra: exp. alar unc. 1, lin. 4. Coll. E. W. Janson.

Allied to A. strigicinctana, Walker.

Notes on the Generic Nomenclature of Lepidoptera: by G. R. Crotch, M.A.

One question arises out of the lists which I published in the last number of this journal, viz.: if two co-extensive genera are formed by different authors (not being co-typical), what is to be done with them? e.g., Fabricius indicated our family Satyridae under the name Satyrus, his type being (as the name shows) S. Maera; Dalman also grouped the species of that family in the genus Erebia, taking E. Ligea as his central point. When the family is split up, as now, into numerous genera, are these to be used as their typical species would indicate; or, being co-extensive synonyms, is it lawful to propose new names for the groups represented by those types?

Mr. Kirby has called attention to the sections adopted by Herbst (1785-1800) and Borkhausen (1788-90). Herbst adopts sixteen sections, which in no case have any types, and are often equal to those of Fabricius: his names, obviously deduced from "Equites," were clearly not intended as generic, being merely the civil and military classes of the Roman nation. 1. Equites. 2. Heliconii. Consules. Parnassii. 4. Danai. Nobiles. 7. Tribuni (=Danais Auct.). 8. Præfecti (=Nymphalis). 9. Prætores (=Satyrus). 10. Vestales. 11. Archontes. 12. Dictatores. 13. Milites (Argynnis). 14. Ephori (=Thecla.). 15. Cives (=Plebeius). 16. Rustici (=Hesperia).

#### 92 Mr. Crotch's Generic Nomenclature of Lepidoptera.

Borkhausen, in 1788, while accepting the ordinary divisions of Linnaus, has called the Nymphales *Nympha*, and subdivided them into four tribes:—a. Najades (=Nymphalis). b. Dryades (=Argynnis). c. Hamadryades (=Melitea). d. Oreades (=Satyrus).

I do not see that either of these authors can be considered as forming genera, but it is worthy of note that Herbst, at that early period, had restricted *Danaus* exclusively to the *Picrina*.

Description of Actinopteryx australis the first species of Trichopterygia discovered in Australia: by the Rev. A. Matthews, M.A., Oxon.

Australia has at last sent us a representative *Trichopterygian* in the shape of a very pretty and interesting new species of *Actinopterys*.

This fine addition to our collections was found by Mr. Brewer on the Swan River (probably under refuse on its shores), and forwarded by him to Mr. Janson, by whose desire I now announce its occurrence. I have dissected one specimen, and find that, though very distinct in species, in all generic characters it agrees precisely with A. fucicola, especially in the maxillae, metasternum and seren ventral segments of the abdomen. This is very satisfactory to me, inasmuch as it establishes the validity of my new genus Actinopteryae.

### Actinopteryx australis, nov. sp.

L.c. <sup>6-7</sup> lin.—Oblongo-ovalis, sat depressa pilis late argenteis vestita, capite sat magno, pronoto ad latera valde dilatato, in medio latissimo, punctis sat magnis distinctis, interstitiis glabris nitidis, atque depressione latâ longitudinali utrinque in disco, impresso, lateribus valde rotundatis, angulis posterioribus vix productis, acutis; elytris ad apices parum attenuatis, lateribus modice rotundatis, confertim, sat profunde asperatis, apicibus dilutioribus, parum rotundatis; pedibus atque antennis longis, gracillimis, pallide flavis.

Head large, much rounded in front, marked with rather large distinct punctures; eyes small, not prominent; antennæ very long and slender with the three apical joints slightly incrassate, pale yellow.

Thorax large, transverse, scarcely longer than the head,

widest at the middle, with the sides much rounded and slightly margined, marked with rather large and distinct punctures, the interstices smooth and shining, and also with a broad shallow longitudinal depression on each side near the middle of the disc, basal margin nearly straight with its angles acute, but very little produced.

Scutchum small, triangular, moderately asperate.

Elytra a little longer than the head and thorax united, suboval, slightly attenuated posteriorly, with the sides slightly rounded and margined, moderately asperate in very close wavy rows, marked with a broad longitudinal depression on each side of the suture near the middle, apex very little rounded, paler, with the extreme edge white.

Abdomen considerably exserted, attenuated towards the apex.

Legs long and slender, pale yellow with the femora dusky.

Beneath pitchy-castaneous with mouth coxa and apex of the abdomen paler.

Differs from A. fucicola in the shape, sculpture, and very short posterior angles of the thorax.

Habitat, Australia.

Obs.—This species, as well as many others of the *Trichopterygia*, is covered with a silvery epidermis, which, when entire, completely conceals the superficial sculpture; but the form of the thorax will always readily distinguish it from *A. fueicola*.

Descriptions of New Genera and Species of Lepidoptera from Costa Rica: by Arthur G. Butler, F.L.S., F.Z.S., and Herbert Druce, F.L.S., F.Z.S.

The following are the remaining undescribed species brought from Cartago, by Dr. Van Patten.

#### RHOPALOCERA.

# FAMILY NYMPHALIDÆ.

SUB-FAMILY DANAINAE. Bates.

GENUS DIRCENNA. Butes.

D. Lonera, sp. nov.

Q. Persimilis D. Olyrati alis latioribus; antica dimidio basali oblique nigrescente; venis nigris; maculis flavis minus conspicuis; posticae area mediana subhyalina albida, subtus macula nulla costali alba, octo parvis marginalibus: corpus subtus abdomine nigro-fusco (haud flavo) aliter velut in D. Olyrate: exp. alar. unc. 3.

Has the upper disco-cellulars of all the wings much less projecting than in *D. Olyras*. Coll. Druce,

#### D. Relata, sp. nov.

3. Affinis D. Olyrati, minor; anticae persimiles; posticae fulvæ subhyalinæ, area anali opaca, margine externo et apice nigrescentibus; alæ subtus fere velut in D. Olyrate: exp. alar. unc. 2, lin. 6. Coll. Druce.

Allied to D. Ólyras.

ITHOMIA,\* Hübner,

Plaginota, sp. nov.

Affinis I. Iphianassa, major: alæ supra fulvæ, anticæ dimidio apicali nigro; fascia pone cellam quadrifida,

<sup>\*</sup> Type I. Drymo.

maculaque in serie eadem obliqua, subapicalibus; maculis septem decrescentibus submarginalibus et fasciola apud cellæ finem, flavis; macula magna discoidali et altera bifida (in ramum secundum medianum cum area apicali confluente) nigris; posticæ margine externo decrescente nigro flavido maculatu; corpus fuscum flavo maculatum et fasciatum, antemis ochreis ad basin fuscescentibus: alæ subtus fere velut supra: corpus flavescens: exp. alar. unc. 2. lin. 8. Coll. Druce.

#### GENUS PTERONYMIA, gen, nov.

#### Ithomia, (part) auct.

- 3. Hindwings with the subcostal and costal nervures running parallel to \(^1\) the length of cell, and then keeping separate to margin of wing; the intermediate area thickened and bearing a pencil of long hairs; upper disco-cellular slanting obliquely inwards; lower discocellular slightly longer, sharply angulated at its upper extremity emitting a recurrent nervure, and then slanting obliquely outwards.
- 2. Area between costal and subcostal nervures not thickened and without pencil; subcostal emitting two branches; otherwise as in male: type *P. Aletta (Ith. Aletta*, Hew.)

Comes near to Direcuna.

#### P. Olyrilla, sp. nov.

Affinis *P. Donilla*, coloribus maculisque *Direcuna Olyratis*, alæ posticæ autem hand hyalino fasciatæ; alæ subtus maculis marginalibus albis, aliter velut supra: exp. alar. unc. 2, lin. 2. Coll. Druce.

Allied to P. Donilla and P. Latilla.

#### P. Notilla, sp. nov.

3, §. Persimilis *P. Latilla*, pallidiores; anticæ autem area tota submediana nigra; cella discoidali immaculata, nigro terminata; posticæ area externa distincte fulva margine nigro: corpus viridi-nigrum, thorace albopunctato, antennis nigris: alæ subtus fere velut in

P. Latilla costa autem posticarum latius fulva: exp. alar.
 J, unc. 2, lin. 4; \$\cop\$, unc. 2, lin. 7. Coll. Druce.
 Nearly allied to P. Latilla.

#### P. Fulvimaryo, sp. nov.

Affinis *P. Obscurata*, anticæ supra fasciola disco-cellulari nigra; cella discoidali immaculata; aliter velut in *Direcnna Murica* coloratæ; posticæ marginibus costali et externo nigris; venis et fascia submarginali externa fulvis: corpus griseum, capite albo punctato: alæ subtus marginibus fulvis: anticæ macula postmedia et duabus apicalibus hyalinis flavis; posticæ fascia subcostali nigra; maculis quinque externis submarginalibus albis nigro-cinctis: corpus subtus sordide albicans: exp. alar. unc. 2, lin. 6. Coll. Druce.

The sexes of this species are alike; the hindwings above are like those of the male of *Directna Olyras* in colouring.

#### LEUCOTHYRIS.\* Boisd.

¿S. Subcostal of hindwings emitting two branches well separated at their origin; upper disco-cellular oblique; lower at least twice as long as upper, nearly perpendicular and strongly angulated at its upper extremity, which forms almost a continuous line with upper.

2. Upper disco-cellular considerably shorter and less

oblique than in male: lower somewhat waved.

A well-marked genus, including I. Zelica, Ilerdina, Ilerda, Synneva, Ælia, Gunilla, Priscilla, Janarilla, Epicharme, Onega, Flora, Phenomoë, Makrena, Egra, Astrea, Peninna, Attalia, Direcnna, Padilla, Cassotis, Vietorina, Alexina, Tabera, and a few other species.

#### L. Rubescens, sp. nor.

Persimilis L. Phenomoi major, anticæ margine externo latius nigro, ferrugineo squamoso, inter ramos secundum et tertium medianos sinuato: posticæ area externa ferruginosa,

<sup>\*</sup> Not structurally characterized by Dr. Boisduval; this is the only genus of *Ithoniae*, amongst those proposed in the Guatemala paper, which does not sink into a synonym of some previously characterized genus.

margine nigro; alse subtus fere velut in L. Phenomoe sed marginibus latius et pallidius ferruginosis: exp. alar. unc. 2. Coll. Druce.

Nearly allied to L. Phenomoe and L. Flora.

#### SUB-FAMILY SATYRINÆ. Bates.

GENUS TAYGETIS Hübner.

#### T. Umbracea, sp. nor.

Alæ supra olivaceo-fuscæ ciliis cinereis: corpus cinereo-fuscam: alæ subtus pallidiores; lineis duabus angulatis mediis, tertia undata submarginali, quarta antemarginali et margine ipso nigro-fuscis; anticæ punctis tribus minutissimis subapicalibus albis; posticæ ocellis sex, quinque velut in anticis punctiformibus, albis, quinto permagno nigro, albo-pupillato: corpus fuscum: exp. alar. unc. 2, lin. 5. Coll. Druce.

# T. Incerta, sp. nov. (? = T. Cecilia, var. Boisd.)

Alæ supra fuscæ, ciliis cinereis; posticæ ocello mediocri subanali nigro, albo pupillato, ferrugineo cincto: corpus fuscum: alæ subtus pallidiores, rosco-tinctæ; lineis duabus mediis bicoloratis, ferrugineis intus ochreo marginatis, subparallelibus, tertia dentato-sinuata indistincta submarginali et quarta marginali; anticæ area externa multo dilutiore; ocello subapicali minutissimo; posticæ ocellis sex, quinto mediocri superno; aliis punctiformibus albis: corpus ochraceo-fuscum: exp. alar. unc. 2, lin. 3. Coll. Druce.

Seems to belong to the *Inornata* group.

#### GENUS EUPTYCHIA. Hübner.

#### D. Argentella, sp. nov.

Affinis *E. Pyraemoni*, minor autem et maculis submarginalibus alarum posticarum nigris, obsoletis; subtus magis rufescentes; fasciis mediis anticarum rectissimis,

posticarum magis irregularibus, externa pone cellam profunde sinuata, extrorsum ochreo limbata; ocellis marginalibus majoribus; lunulisque insuper introrsum rufescentibus: corpus cinerescens: exp. alar. unc. 1, lin. Coll. Druce.

Allied to E. Pyracmon and Cornelius, but with the central lines below of a totally different shape.

#### E. Insoluta, sp. nov.

3, ♀. Alæ supra fumato-fuscæ, subhyalinæ; area centrali aliquando albida; fasciis duabus subparallelibus continuis mediis et lineis duabus submarginalibus, undatis, indistinctis, cinereo-fuscis; anticae ocello subapicali indistincto; posticæ uno apicali et altero subanali nigris albopupillatis: alæ subtus albæ, fasciis supernis et tertia basali rufo-fuscis: linea submarginali nigra; fascia submarginali fusca in anticis rufescente; antice ocello subapicali distincto nigro albo-pupillato, luteo-cincto; secundo inter ramos medianos indistincto; posticæ ocellis tribus distinctis, duobus apicalibus rufo circumcinctis, tertio subanali permagno fusco circumcineto; angulo anali rufescente: corpus cinerescens; exp. alar. 3, unc. 1, lin. 5; 2, unc. 1, lin. 8. Coll. Druce.

Belongs to the Mollina group; the markings of the female are better defined than those of the male.

#### GENUS PEDALIODES. Butler.

#### P. Hulda, sp. nov.

Affinis P. Cocytia, Porphyria, &c.: ala supra fusca; posticae lineis duabus valde irregularibus discalibus ferrugineis indistinctis; ocello subanali nigro albo pupillato, ferrugineo, cincto: alæ subtus pallidiores; fascia discali irregulari, pone ramum tertium medianum posticarum continuata, dilutius fusca nigro marginata (in posticis ocellos quatuor superiores ferente); fasciis duabus mediis subangulatis ferrugineis, late separatis; posticae linea undulata pone cellam subanali ochracea; ocellis sex nigris albo-pupillatis, fulvo-cinctis: corpus fuscum: exp. alar. unc. 2. Coll. Druce.

### P. Lithochaleis, sp. nor.

Alæ supra nigro-fuscæ; area externa dilutiore; ciliis albido variis; corpus nigro-fuscum: alæ subtus pallidiores rufescentes; ferrugineo-fusco reticulatæ; anticæ linea subangulata discali aream basalem limitante, apud costam squamis ochraceis extrorsum limbata; area medio-discali ferruginosa; puncto minuto apud apicem albo, et linea submarginali angulata nigra; posticæ linea sesquialtera media; squamis costalibus ochraceis; puncto subanali albo, nigro circumdato: corpus cinereo-fuscum pedibus ochraceis: exp. alar, unc. 2, lin. 1. Coll. Druce.

Nearly allied to P. Pisonia.

#### SUB-FAMILY NYMPHALINÆ. Bates.

GENUS PAPHIA. Fabricius.

# P. Herbacca, sp. nov.

¿a. Alæ supra cyaneo-nigræ, area basali late viridi; anticæ macula sesquialtera ejusdem coloris subapicali; posticæ areis costali et abdominali fuscis, macula ovali subcostali aurantiaca; punctis tribus, quorum medio majore, submarginalibus albis: corpus cinereo fuscum: alæ subtus grisæe, fusco reticulatæ; fascia lata inæquali, in posticis angulata, abbreviata, castanea; anticæ costa pone fasciam albo-punctata, lineolis duabus fuscæscentibus, area externa diffuse ferruginosa: area anali albida; posticæ punctis duobus subcostalibus argenteis; fasciola submarginali, ad angulum ani oblique currente, diffuse ferruginosa; punctis quinque submarginalibus, secundo maximo, hoc et tertio nigro-notatis, albis: corpus cinereofuscum: exp. alar. unc. 2, lin. 8. Coll. Druce.

Belongs to the *Arginussa* group, but seems not to have come before, for we can find no description of it.

#### GENUS PHYCIODES. Hübner.

#### P. Niveonotis, sp. nov.

Q. Alæ supra nigræ, anticæ macula obliqua pone cellam, puncto inter venas discoidales submarginali et plaga rotundata in ramos medianos, niveis; posticæ fascia media punctoque extrorsum adjecto niveis; corpus nigrum: alæ subtus cinereo fuscæ, nigro striatæ; maculis supernis niveis; anticæ fascia obliqua postmedia nigra; posticæ area media discali fuscescente; punctis discalibus nigris; lunulis submarginalibus albidis: corpus cinereum: exp. alar. unc. 1, lin. 3. Coll. Druce.

Belongs to the *Ianthe* group, one specimen, rather rubbed.

#### GENUS MYSCELIA. Doubleday.

### M. Pattenia, sp. nov.

Affinis M. Ethusæ, differt supra fasciis omnibus cyaneis quarum duabus in cella anticarum, angustioribus, secunda et tertia posticarum confluentibus; alae subtus fusca, striis duabus discoideis griseis, macula apud cellulæ finem nebulaque adjuncta cyaneis, macula inter ramos primum et secundum medianos et seriebus duabus postmediis obliquis, albis, striola irregulari submarginali ciliisque albis, apice cano-fusco obscurius reticulato; posticæ cinereo et castaneo nebulosæ, nigro reticulatæ: macula costali cuneiformi et area apicali albido squamosis; striis duabus valde irregularibus, acquidistantibus, ante medium, fuscis; maculis subquinque pone medium in serie obliqua, piceis; corpus cinereo-fuscum: exp. alar. unc. 2, lin. 8. Coll. Druce.

Allied to *M. Ethusa*, of Boisduval, but very distinct; it may be the female of *M. Cyanathe*, Felder, which the under surface nearly resembles.

# GENUS MEGALURA. Blanchard.

## Megalura Valetta, sp. nov.

Q. Alæ supra fuscæ, striis duabus mediis æquidistantibus nigro-fuscis; anticæ lineis discoideis apud basin et area apicali, a fascia transversa decrescente alba introrsum limitata, nigro-fuscis; fascia alba extrorsum crenata maculis subtribus submarginali-analibus punctisque duobus subapicalibus albidis; posticæ apicæ diffuse ochreo; fascia submarginali, apud aream analem maculari et nigrescente, albido maculata; apud apicæn nigro fusca ochraceo trimaculata; stria antemarginali nigra, ciliis albis; cauda interiore fulvo-rorata: corpus fuscum palpis fulvo squamatis: alæ subtus pallide ochraceo-albidæ; striis duabus

basalibus ochreis, fascia ejusdem coloris in medio pallescente, introrsum in posticis diffusa, fascia media brunnea extrorsum lilacino limitata apud angulum analem recurvata et ad angulum abdominalem currente; fascia pone eam fusca, in posticis duplo latiore, lilacino persecta; area externa fuscescente, maculis submarginalibus albis, subtriangularibus; apud marginem posticarum posteriorem intus nigro lunatis; margine late brunneo extrorsum ochreo, in regione anali posticarum nigro, squamato; puncto subanali nigro: corpus albidum: exp. alar. unc. 2, lin. 9.

M. Valetta is very nearly allied to M. Marcella  $\mathfrak{P}$ , but differs from the white-banded form of the female of that species in having the spots near anal angle of frontwings more distinctly separated; the apex of hindwings ochreous and the white spots more distinct, below it differs in the arrangement of the bands, which, however, in their general

aspect, are very similar to those of M. Marcella.

# GENUS APATURA.

# A. Plesaurina, sp. nov.

¿. Alæ supra fuscæ, characteribus cellularibus nigris, fasciis duabus submarginalibus nigris; fascia lata regulari media, in anticis ochreo-albida, plaga aurantiaca subpyriformi maculaque costali cum ea nexis, a venis persecta et venam superiorem discoidalem non excedente, in posticis alba in vena minternum abrupte terminata; fasciola anali ferruginea, lumulisque duabus analibus cinereis: corpus piceum: alæ subtus velut in A. Laura et affinibus: exp. alar. unc. 2, lin. 6. Coll. Druce.

Not unlike Heterochroa Plesaure on upper surface.

# SUB-FAMILY HELICONINZE. Bates.

GENUS EUEIDES. Hübner.

# E. Vulgiformis, sp. nor.

Affinis *E. Ediuti*, antica autem fascia nulla mediana et maculis aliis minoribus; postica ferruginea margine late nigro ad apicem albo maculato: antica subtus ad basin ferruginosæ; maculis quatuor apicalibus et quatuor externis submarginalibus albis; posticæ stria subcostali nigra; maculis submarginalibus albis: aliter velut supra: exp. alar. unc. 3. Coll. Druce.

### FAMILY ERYCINIDÆ.

### SUB-FAMILY EURYGONINÆ. Bates.

GENUS EURYGONA. Boisduval.

Eurygona Regipennis, sp. nov.

Alæ supra nigræ purpureo nitentes; posticæ macula subanali fusca: alæ subtus pallide fuscæ; fascia media alba, introrsum aurantiaco distincte limitata; extrorsum in anticis castaneo albidoque diffuse limitata; posticæ maculis septem nigris, quarta permagna ovali, aliis hastatis, submarginalibus, extrorsum albo introrsum fulvo-cinctis; linea marginali fulva: corpus cinereo-albidum, palpis albis, pedibus fulvis: exp. alar. unc. 1, lin. 7. Coll. Druce.

# Eurygona Aurantia, sp. nov.

Alæ suprà nigro-fuscæ, anticæ plaga interno-mediana basali aurantiaca; posticæ plaga permagna ejusdem coloris subtriangulari media: corpus fuscum: alæ subtus sericeo-albæ; anticæ apice fusco tincto: corpus album, pedibus ochraceis: exp. alar. unc. 1, lin. 4. Coll. Druce.

Nearly resembles a small moth in the same collection, and seems allied to E. Pusilla of Felder from Mexico.

# ${\bf SUB\text{-}FAMILY\ ERYCININ.E.}\quad \textit{Bates},$

GENUS EMESIS. Fabricius.

Emesis Olivæ, sp. nov.

3, 2. Alæ supra olivaceo-fuscæ; area basali lineis quinque interruptis, transversis, nigris; serie submarginali

macularum nigrarum, introrsum lunulis diffusis nigris partim cinctarum; anticae linea interrupta pone cellam nigra: corpus fuscum: ake subtus paululum pallidiores maculis lineisque tenuioribus nigris: corpus fuscum: exp. alar. unc. 1, lin. 6-7. Coll. Druce,

Specimens in the British Museum are labelled "S.

America."

# Emesis Furor, sp. nov.

Affinis *E. Opi*; alæ supra ferrugineæ lineolis basalibus nigro-cinereis; seriebus duabus angulatis communibus subparallelibus postmediis, et tertia submarginali punctorum nigrorum: corpus ferrugineum: alæ subtus fulvæ maculis lineolisque distinctis, ferrugineo-fuscis: corpus læte fulvum; aliter velut supra: exp. alar. unc. 2, lin. 1. Coll. Druce.

In the British Museum from Honduras.

# GENUS MESOSEMIA. Hübner.

M. Frequens, sp. nov.

Alæ supra fuscæ; striola cellas transerrante, stria angulata media, fascia discali; area apicalis in anticis, striga submarginali et margine in posticis, nigro-fuscis; anticæ ocello magno discoideo nigro bipupillato, fulvo bicineto; fascia obliqua lata postmedia albæ: corpus fuscum: alæ subtus pallidiores lineis et fundo toto posticarum albido squamosis; anticæ ocello imperfecto submediano ochreo-albido; posticæ ocello unipupillato subbasali nigro, fulvo cineto; punetis discalibus albis: corpus fuscum: exp. alar. unc. 1, lin. 6. Coll. Druce.

## FAMILY LYCENIDE.

# SUB-FAMILY LYCÆNINÆ. Butler.

GENUS LAMPIDES. Hübner.

L. Zachæina, sp. nov.

Affinis L. Cerauno, & differt supra margine fusco tenuiore; maculis posticarum nigris, obsoletis; subtus obscuriores,

posticæ ocellis duobus submarginalibus mediis, magnis, nigris ochreo-albido cinctis et chalybeo roratis: exp. alar. unc. 0, lin. 9.

§. Supra area basali cœrulea latiore; posticae ocellis subquinque anali-submarginalibus nigris albo-cinctis; subtus obscuriores, anticae maculis sex magnis in serie undata discali, nigris (haud fuscis), albo-cinctis; posticae ocellis marginalibus paululum minoribus: exp. alar. unc. 1. Coll. Druce.

Nearly allied to L. Ceraunus, but the male with two metallic occlli below.

### SUB-FAMILY THECLINÆ. Butler.

GENUS STRYMON. Hübner.

S. Pastor, sp. nov.

§. Affinis S. Romulo, supra cyaneæ, costis et marginibus externis late nigris; posticæ angulo ani ferrugineo, area abdominali albicante: corpus viridi-cinereum, capite rufescente; alæ subtus virides, margine temuissime rufescente, anticæ margine interno cinereo; posticæ lunulis marginalibus rufo-fuscis; linea media punctiformi argentea, introrsum rufo marginata; macula apud caudam longiorem submarginali rufa; angulo ani piceo: corpus subtus fuscum, abdomine ochreo: exp. alar. unc. 1, lin. 6. Coll. Druce.

Allied to S. Romulus and S. Menalcas.

# S. Agricolor, sp. nov.

¿a. Alæ supra lilacino-cyaneæ, nitentes; costis et marginibus externis mediocriter nigris; basi virescente; posticæ area abdominali dilute fusca; angulo ani paululum rufescente: corpus cinereo-viridum, capite rufo-fusco: alæ subtus virides, cupreo nebulosæ; anticæ dimidio interno cinereo; strigula basali mediana nigrescente; lunulis quatuor pone cellam rufis; punctis submarginalibus cinereis; maculis triangularibus marginalibus brunneis; posticæ plaga quadrata basali nigra; linea indistincta media

undulata rufescente; lunulis submarginalibus et linea irregulari aream latam marginalem cupream limitante, rufescentibus: corpus subtus cinerescens, abdomine fulvescente: exp. alar. unc. 1, lin. 4. Coll. Druce.

# S. Cælicolor, sp. nov.

Affinis S. Aphacæ, supra cyaneæ costis et marginibus externis late nigrescentibus; posticæ maculis tribus anali submarginalibus nigris, extrorsum albido-cinctis, et macula anali aurantiaca; corpus fuscum: alæ subtus dilute fuscæ: anticæ lineis tribus albis, prima cellam transerrante abbreviata, secunda discali infra ramum primum medianum angulariter interrupta; tertia submarginali lunulari diffusa, maculis griseis extrorsum limbata; posticie lineis tribus albis, prima media, apud marginem internum litteram W., nigro et rufo indistincte marginatum formante; secunda discali, aream externam limitante, interrupta, nigro extrorsum marginata, tertia marginali; ciliis fuscis; areola submarginali diffuse albida; macula magna inter caudas coccinea, nigro punctata; secunda subanali cinerea, tertia anali nigra, introrsum albo et fulvo cinctis: corpus cinereum: exp. alar. unc. 1, lin. 4. Coll. Druce.

#### GENUS MITHRAS. Hübner.

# M. Augustinus, sp. noc.

Affinis M. Monica, major; alæ supra cyaneo-virides: anticæ dimidio apicali nigro; posticæ apice et margine externo nigris, striolis tribus anali-submarginalibus cœruleo-albidis; caudis, (interiore longissima) albo acuminatis, nigris; corpus viridum, capite fusco: alæ subtus fuscæ, area basali obscuriore; margine externo obscure fusco introrsum dilutius limbato; anticæ punctis septem albis, in serie obliqua aream basalem pone cellam limitante; posticæ punctis sex in serie sigmoidea, mediis ; serie altera subangulata increscente discali; maculis duabus subanalibus lineolisque duabus anali-submarginalibus, omnibus viridibus; ciliis analibus albo-variis: corpus subtus fuscum: exp. alar. unc. 2. Coll. Druce.

Nearly allied to M. Monica of Hewitson.

#### GENUS BITHYS. Hübner.

# B. Azurinus, sp. nov.

Affinis B. Faventiæ, major; alæ supra cyaneæ, costis, apicibus et marginibus externis late nigris; anticæ macula magna subpyriformi disco-cellulari fulva; posticæ area abdominali albida: corpus fuscum, thorace et abdomine cœrulescentibus; oculis albo-cinetis; palpis albo-lineatis; alæ subtus virescenti-cinereæ, linea undulata discali alba, posticærum interrupta; maculis submarginalibus cinereis albo-cinetis; margine externo tenuissime dilutiore, posticærum albo; ciliis caudisque nigrescentibus; posticæ macula, inter caudas, submarginali nigra, intronsum aurantiaco et ochreo-albido cineta; altera anali nigra, squamis albis late cineta: corpus subtus cinereo-fuscum abdomine albicante; pedibus albo fasciolatis: exp. alar. unc. 1, lin. 8. Coll. Druce.

Near B. Farentia of Hewitson.

# B. Hesperitis, sp. nov.

Affinis *B. Stagira*, supra nigro-fuscæ; posticæ plaga subpyriformi dimidii interni subanali; area abdominali pallide fusca; macula anali rufa: corpus fuscum: alæ subtus velut in *B. Stagira*: exp. alar. unc. 1, lin. 6. Coll. Druce.

### GENUS TMOLUS. Hübner.

# T. Crolinus, sp. nov.

T. Crolo affinis, supra cyaneæ, anticæ dimidio apicali nigro; posticæ costa et linea marginali nigris; area abdominali fusco: corpus virescens: alæ subtus albidæ; anticæ striga postmedia rufo-fusca, altera discali cinereo-fusca, cillis griseis; posticæ seriebus duabus macularum rufescentium valde irregularibus mediis; linea discali nigrescente et altera marginali nigra; macula inter caudas coccinea nigro-notata; aliis submarginalibus griseis; puncto anali diffuso ochreo: corpus album, abdomine ochraceo: exp. alar. unc. 1, lin. 4. Coll. Pruce.

# T. Invisus, sp. nov.

Alæ supra cinereo-fuscæ; posticæ ocellis marginalibus nigrescentibus albido cinctis; ciliis longissimis albis; corpus fuscum; alæ subtus pallidiores; area externa albicante; litura disco-cellulari alba; linea discali angulata fusca aream externam limitante; fascia submarginali lunulata decrescente fusca; posticæ dimidio basali fusco alboque maculato a linea media irregulari maculari nigra limitata; area apicali albicante; fascia submarginali lunulata decrescente fusca; lunulis antemarginalibus pallide fuscis, macula inter ramos primum et secundum medianos ochracea nigro notata, et strigula aurantiaca anali nigro alboque notata: corpus cinereo albidum; exp. alar. unc. 1, lin. 3. Coll. Druce.

# T. Halciones, sp. nov.

3. Alæ supra cærulææ, anticæ dimidio apicali nigro; posticæ costa nigra, linea tenuissima marginali nigra; area abdominali ochracea: corpus fuscum, viresceus: alæ subtus cinereo albidæ; anticæ stria discali, a costa currente, fusca, extrorsum albo marginata: posticæ stria obscuriore discali ad marginem internum biangulata; stria maculari, margini externo propiore, albidæ; maculis duabus subanalibus aurantiacis nigro notatis, macula grisea interjecta; corpus griseo-albidum; exp. alar. unc. 1, lin. 2. Coll. Druce.

# T. Isobeon, sp. nov.

♂, ♀. Alæ supra chalybeo-fuscæ; posticæ maris plaga magna, feminæ dimidio interno cyaneo; area abdominali grisea; maculis duabns subanalibus nigris et tertia anali coccinea; linea antemarginali alba; corpus fuscum: alæ subtus ochraceo-fuscæ; anticæ linea discali fusca, extrorsum dilutius marginata; posticæ linea discali fusca ad marginem internum biangulata et introrsum coccineo extrorsum albo-marginata; maculis septem submarginalibus introrsum nigro-cinetis, quarto, quinto, sexto et septimo coccineo variis; quinto, sexto et septimo nigro notatis, sexto griseo irroratis, aliis fuscis; linea antemarginali alba, margine ipso nigro: corpus ochraceo-albidum: exp. alar. ♂, unc. 1, lin. 1, ♀ unc. 1, lin. 4. Coll. Druce.

# T. Vespasianus, sp. nov.

Q. Alæ supra fuscæ, area basali anticarum et bitriente posticarum lilacinis: posticæ puncto anali coccineo; linea antemarginali albida: corpus griseum: alæ subtus fusco-albidæ, anticæ linea discali fusca extrorsum albo marginata; posticæ linea discali tenuissima fusca introrsum aurantiaco extrorsum albo marginata; linea margini propiore alba lunulata extrorsum partim nigro limitata; maculis sex marginalibus ocellaribus, tribus superioribus et quinto fuscis albo-cinctis, aliis aurantiacis nigro notatis infima cum stria interno-anali aurantiaca confluente: corpus fusco-albidum: exp. alar. unc. 1, lin. 3. Coll. Druce.

# T. Charichlorus, sp. nov.

Alæ supra purpuræ, anticæ costa et plaga quadrata apicali nigris; posticæ area costali et linea marginali nigris; area abdominali cinerea: corpus viridi-nigrum: alæ subtus olivaceo-fuscæ; anticæ linea discali nigra albo marginata; posticæ linea discali nigra, extrorsum albo marginata, ad marginem internum biangulata; maculis marginalibus velut in *T. Isobcone*: exp. alar. unc. 1, lin. 2. Coll. Druce.

# T. Denarius, sp. nov.

Alæ supra cupreo-fuscæ; posticæ macula anali sordide rufa, albido cincta, corpus fuscum: alæ subtus fuscæ; anticæ litura disco-cellulari, linea discali et altera submarginali nigro-fuscis albido plus minus marginatis; posticæ litura disco-cellulari velut in anticis; linea discali ad marginem internum biangulata, nigra, introrsum brunneo, extrorsum albo marginata; linea margini externo propiore nigra; ocellis septem plus minus brunneis, quinto et septimo nigro-notatis, sexto griseo; linea antemarginali albida: corpus cinereo-fuscum: exp. alar. unc. 1. Coll. Druce.

### FAMILY PAPILIONIDÆ.

### SUB-FAMILY PIERINÆ. Bates.

GENUS TERIAS. Sugainson.

# T. Persistens, sp. nov.

Affinis *T. Deliw* et *Eugeniw*, alæ anticæ supra flavæ, costa basali late cinereo rorata; apicali et margine externo intus bisinuato (angulo posteriore excepto) late nigro fuscis; fascia in mare lata interna, extrorsum aurantiaco limitata, nigro fusca; posticæ plaga apicali intus sinuata et venarum apicibus (anguli ani exceptis) nigro-fuscis; basi cinerescente: corpus cinereo-albidum, capite rufescente: alæ subtus fere velut in *T. Delia*: exp. alar. unc. 1, lin. 7. Coll. Druce.

# T. Calceolaria, sp. nov.

- 3. Affinis *T. Dinæ* differt supra, alis saturatioribus; margine externo fere nullo; characteribus subtus velut in femina multo distinctioribus.
- Q. Differt supra, plaga apicali fere velut in T. Deca triangulari; posticae macula distincta apicali aurantiaca: alæ subtus illis T. Memuli simillimae: exp. alar. unc. 1, lin. 11. Coll. Druce.

The male and a female are in the collection of the British Museum from Honduras.

#### GENUS LEPTOPHOBIA. Butler.

# L. Tenuicornis, sp. nor.

Affinis L. Cæsiæ; & differt supra cella discoidali anticarum nigra; margine externo duplo latiore, nigro; anticæ subtus maculis subquatuor apicalibus sulphureo-flavis; posticæ dimidio interno aureo-flavo: & supra macula postmedia anticarum majore; margine externo posticarum latiore, nigro; anticæ subtus velut in mare; posticæ magis flavescentes quam in L. Cæsia; area externa late fusca in marginem flavo-maculata: exp. alar. unc. 2, lin. 4. Coll. Druce.

#### GENUS PIERIS Roisdyval

# P. Notistriga, sp. nov.

Persimilis P. Pandosia differt subtus fascia subcostali in posticis fusca; exp. alar. unc. 1, lin. 8. Coll. Druce.

Scarcely differs from *P. Pandosia* excepting in the well defined black-brown subcostal band on under-surface of hindwings.

# P. Noetipennis, sp. nor.

Alæ supra fumato-fuscæ; anticæ fascia lata vel plaga permagna media, extrorsum in venam subcostalem dentata, inter ramos medianos bisinuata, macula subapicali et puncto submarginali albis; posticæ costa dilutiore, punctis duobus inconspicuis submarginali-apicalibus albidis; corpus fuscum: alæ subtus maculis submarginalibus albidis; posticæ lobulis basalibus aurantiacis, striga interrupta subcostali flava; macula cuneiformi subapicali alba; disco venisque migrescentibus; corpus cinereo-fuscum, palpis, collo et abdomine albo squamosis: exp. alar. unc. 2, lin. 2. Coll. Druce.

Belongs to the P. Locusta group.

#### GENUS DISMORPHIA. Hübner.

# E. Lunina, sp. nov.

D. Virgini affinis; alæ supra fuscæ; anticæ fascia obliqua postmedia venas disco-cellulares extrorsum limitante in venam autem subcostalem cum macula parva triangulari discoidali confluente et ad ramum secundum medianum continuata, alba; maculis tribus, prima bifida subapicalibus albis: posticæ area media costaque alba, ad basin virescente: corpus viridi-cinereum, thorace nigrescente: anticæ subtus area basali et margine interno albidis; margine externo et apice brunneis argenteo roratis; posticæ brunneæ argenteo maculatæ et punctatæ; maculis duabus basalibus flavis: corpus subtus album: exp. alar. unc. 2, lin. 6. Coll. Druce.

# FAMILY HESPERIDÆ.

GENUS ARTEUROTIA, gen. nov.

Affinis Spathilepiae et Hydranomiae, anticae margine interno insigniter undulato; posticae valde productae, plaga permagna costali, ad basin haud attingente, sericea; palpis robustis, antennis tenuibus velut in Spathilepia, pedibus valde elongatis tenuibus; calcaribus elongatis; pedibus anticis autem non calcaratis.

Generis typus A. Tractipennis.

# A. Tractipennis, sp. nor.

Alæ supra fuscæ cinereo irroratæ; anticæ macula subbasali diffusa; fasciola costali media; macula semicirculari costali apud apicem punctum hyalinum includente, nigris; punctis duabus subapicalibus extra maculam hyalinis; stria submarginali albicante; ciliis fusco-nigris; posticæ plaga permagna costali ovali sericeo-fusca; punctis duobus diffusis interno-mediis tribusque submarginalibus diffuse albidis: corpus cinereo fuscum: alæ subtus pallidiores, anticæ albidæ, costa, vena mediana et area apicali castaneis; posticæ pallide rufo-fuscæ albido irroratæ; area basali cinereo maculata; area apicali castaneo fuscescente; punctis quatuor interno-mediis, striaque marginali albidis; corpus albidum, palpis niveis: exp. alar. unc. 1, lin. 7. Coll. Druce.

A very remarkable new species.

GENUS ERYCIDES. Hübner.

E. Socius, sp. nov.

Alæ fere velut in *E. Palemone* sed posticæ supra strigis duabus internis diffuse cæruleis, ciliisque omnino albis: exp. alar. unc. 2, lin. 6. Coll. Druce.

There is also one example of this species in the British

Museum, but without a locality.

GENUS CARYSTUS. Hübner.

C. Deceptus, sp. nov.

Alæ supra obscure fuscæ, area basali nitente cæruleoviridi; anticæ maculis tribus magnis fasciam obliquam formantibus, prima in cella, secunda inter ramos medianos, tertia subanali et puncto inter ramos secundum et tertium medianos hyalino-albis: posticæ margine abdominali pallidiore; ciliis marginali-analibus fulvis: corpus cinereo-fuscum, nitente cæruleo micans: anticæ subtus costa basali margaritacea; fasciola obliqua subapicali et macula diffusa apicali roseo-albis; area interna pallida: posticæ area basali margaritaceo-albida; macula ejusdem coloris diffusa in disco; area abdominali-anali fulvescente; aliter velut supra: corpus thorace viridi-cinereo, palpis albis, abdomine fulvo: exp. alar. unc. 2, lin. 6. Coll. Druce.

Looks, at first sight, like a *Telegonus*, but is allied to a species in the British Museum from Venezuela, and which nearly resembles the Javanese *C. Hucla* of Hewitson.

# C. Epicincea, sp. nov.

Alæ supra nigro-fuscæ; anticæ fasciola lata quadrifida obliqua media, hyalina; basi et posticis, margine externo excepto, certo situ viridi nitide micantibus; corpus nigro-fuscum, virescens; alæ subtus fere velut supra; area autem virescente multo magis distincta; anticæ margine interno albo; posticæ puncto subanali fusco-albido: corpus viridi nitens; tarsis castaneo hirtis: exp. alar. unc. 2, lin. 1. Coll. Druce.

Nearly allied to C. Cincca of Hewitson.

### GENUS PHLEBODES. Hubner.

### P. Justinoides, sp. nov.

Alæ supra fuscæ: corpus fuscum: anticæ subtus nigrofuscæ, area apicali rufescente, fasciola subapicali arcuata nebulosa cinerea et lineola apicali albida; posticæ ad basin regulariter castaneo-fusca; area statim pone hanc albida; plaga duplici discali nebulosa nigra; ciliis omnibus fuscis pallescentibus: corpus cinereo-fuscum; palpis pedibusque albicantibus: exp. alar. unc. 1, lin. 4. Coll. Druce.

Allied to P. Justina.

#### GENUS PAMPHILA. Fabricius.

# P. Uniformis, sp. nov.

Alæ supra et subtus fuscæ; corpus fuscum; exp. alar. unc. 1. Coll. Druce.

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Allied to *P. Pygmœus*, but larger, with all the wings rather more produced and the hindwings more purplish below; there are specimens in the collection of the British Museum from Rio Janeiro and Para.

# Pamphila Inimica, sp. nov.

Alæ supra olivaceo-fuscæ: corpus fuscum, palpis paululum rufescentibus: alæ anticæ subtus area apicali ferruginosa, anali ochrea; stria squamosa discoidea ochrea, fasciola biangulata subapicali ferruginea; margine externo cinereo irrorato; posticæ plerumque ferrugineæ, puncto basali, fascia angulata media et altera apicali-externa fuscis; area pyramidata interno media virescente-ochracea; margine externo cinereo irrorato; ciliis omnibus roseo-fuscis: corpus cinereum, palpis albicantibus: exp. alar. unc. 1, lin. 5. Coll. Druce.

#### GENUS THANAOS. Boisdural.

# T. Invisus, sp. nor.

Affinis *T. Persio*; alæ supra pallide fuscæ, obscurius nebulosæ; anticæ fascia squamosa obliqua discali cinerea, punctoque subcostali pone cellam albido: corpus fuscum, palpis cinereis, antennis nigris albo annulatis ochreo clavatis: alæ subtus pallidiores: corpus cinereo-fuscum, pedibus, abdominisque medio albicantibus: exp. alar. unc. 1, lin. 3. Coll. Druce.

#### GENUS ACHLYODES. Hübner.

# A. Sempiternus, sp. nov.

Alæ supra rufo-fuscæ, basi et area discali fusco bifasciatis; margine externo nigro; ciliis abdominalibus albis: corpus nigrescens: ake subtus pallidiores; anticæ maculis marginalibus diffusis ochraceo-albidis; posticæ area anali cinereo-alba: corpus subtus cinereo-fuscum, palpis et ventre cinereo-albis: exp. alar. unc. 1, lin. 11. Coll. Druce.

Belongs to the A. Obscura group.

# A. Viridiceps, sp. nov.

Affinis A. Chlorocephalo; major, palpis brevioribus, alis anticis magis productis; punctis tribus subapicalibus hyalino-albis: alæ subtus pallidiores, area abdominali posticarum cinerea: exp. alar. unc. 1, lin, 6. Coll. Druce.

Allied to A. Chlorocephalus, there are specimens in the

British Museum from Bogota and Bolivia.

### GENUS HELIAS. Fabricius.

# H. Lactifera, sp. nov.

Alæ anticæ fuscæ cinereo et nigro-fusco marmoratæ; anticæ basi, fascia lata media irregulari et nebula costali subapicali nigris; punctis tribus in serie obliqua costalibus apud apicem; posticæ area basali nigra; fascia media diffusa cinereo-alba; extrorsum cinereo bimaculata; margine externo late fusco; linea antemarginali nigra: corpus nigrescens: alæ subtus fuscæ, ferrugineo et ochraceo marmoratæ; anticæ area posteriore ochracea: posticæ area abdominali cinerea; lineis duabus valde irregularibus rufofuscis; puncto duplici discoideo et seriebus duabus punctorum submarginalium, cinereis brunneisque; punctis duabus internis albidis: corpus cinereo-fuscum, palpis subtus aurantiacis, oculis albo cinctis, pedibus rufescentibus: exp. alar. unc. 1, lin. 6. Coll. Druce.

# HETEROCERA.

# FAMILY CASTNIIDÆ.

GENUS ÆGIALE. Felder.

∠E. Indecisa, sp. nov.

Alæ supra nigro-fuscæ, area basali fulvescenti hirta, anticæ macula discoidea; punctis tribus in serie arcuata subcostali, pone cellam; duabus apud medium marginis externi, maculisque tribus in serie obliqua infra ramos medianos ochraceo-albidis; ciliis omnibus albis, fusco notatis; corpus supra fuscum, metathorace fulvescenti hirto, oculis albo-cinctis; antemis nigris: alæ anticæ subtus nigræ, apice grisescente; costa fuscescente; maculis supernis albidis; posticæ cinerææ fusco adspersæ; dimidio interno fuscescente; macula discoidea, altera majore interno-mediana, et subtribus fere lunatis discalibus margini subparallelibus, nigris; ciliis albis, fusco variis; corpus subtus fuscum, abdomine cinereo squamoso, antemis albicantibus; exp. alar. unc. 23. Coll. Druce.

The genus Lijiale seems to me to belong rather to the Castniidæ than to the Hesperidæ, for not only does it differ remarkably from all the genera of the latter family in neuration, but in its small palpi and comparatively narrow head, thickened antennæ, clumsy legs and apparently

flexible abdomen.

# FAMILY ZYGÆNIDÆ.

GENUS GYMNELIA. Walker.

G. Jansonis, sp. nov.

Alæ supra hyalinæ, marginibus venisque nigris; corpus thorace nigro, capite colloque viridi micantibus; antennis pedibusque nigris; abdomine ad basin late ochreo, aliter aurantiaco, nigro sex fasciato, fasciis lateraliter viridi squamosis: alæ subtus velut supra: corpus thorace nigro, albo maculato, abdomine nigro, ano punctisque subanalibus aurantiacis: exp. alar. unc. 1, lin. 8. Coll. Janson.

# FAMILY LITHOSIIDÆ.

GENUS NELO. Walker.

N. Chrysomela, sp. nor.

Alæ anticæ supra nigræ, plaga magna centrali ovali aurantiaca; posticæ aurantiacæ, marginæ externo latæ nigro, costa et veua subcostali fuscis: corpus nigrum collo, tegulisque aurantiacis; alæ anticæ subtus pallidiores, striola costali basali ochracæ, plaga centrali in mare ochracæ; posticæ ochracæe, nigro venosæ; vena subcostali fusco nebulosa; marginæ externo latæ fusco: corpus cinereo-fuscum ochracæo fasciatum, pedibus ochracæis: exp. alæ. 3, unc. 1, lin. 4; \$, unc. 1, lin. 6. Coll. Janson.

# FAMILY REMIGIDÆ.

GENUS REMIGIA. Guencé.

R. Impressa, sp. nov.

Alæ supra albido-fuscæ; anticæ squamis basalibus sparsis fuscis; fascia obliqua regulari ante medium et altera transversa pone medium, introrsum bene limitatis, extrorsum diffusis, fuscis: fasciola trifida costali subapicali nigrofusca, punctisque discalibus in venas seriem formantibus; margine fusco-squamoso: posticæ area basali minime obscurius colorata, fascia extrorsum subangulata discali fusca; margine externo fusco-squamoso: corpus fusco-albidum; alæ subtus sericeo ochreo-albidæ immaculatæ: corpus ejusdem coloris: exp. alar. unc. 1, lin. 6. Coll. Janson.

# FAMILY LARENTIDÆ.

GENUS SCORDYLIA. Gueneé.

S. Mortipax, sp. nor.

Alæ supra cinereo-nigræ; anticæ fascia obliqua postmedia alba ad angulum ani vix attingente: corpus fuscum: alæ subtus rufescentes; anticæ area basali albo reticulato; fascia superna alba, area apicali castanea, subprunosa; posticæ rufo-cineræ albo reticulatæ: corpus thorace, palpis pedibusque aurantiacis, abdomine cinereo: exp. alar. unc. 1, lin. 4. Coll. Janson.

# FAMILY EMPLOCIDÆ.

GENUS EMPLOCIA. Herrich Schäffer.

E. Primulina, sp. nov.

Alæ supra nigro-fuscæ, anticæ plaga permagna basalimediana pyriformi aureo-flava fasciola plus minus distincta ejusdem coloris subapicali; posticæ plaga permagna interno-mediana triangulari aureo-flava: corpus fuscum flavo fasciolatum: alæ subtus pallidores; anticæ fascia subapicali et margine interno pallide ochreis, posticæ costa, area superna et margine anali ochraceis: corpus fuscescens; aliter velut supra: exp. alar. unc. 1, lin. 3. Coll. Janson.

Descriptions of two new species of Amphizoa discovered in Vancouver's Island by Mr. Joseph Beauchamp Matthews: by the Rev. A. Matthews, M.A., Oxon.

I have much pleasure in recording the discovery of two new species of the extraordinary genus Amphizoa. Both were found in Vancouver's Island by my brother, Mr. J. B. Matthews; but as he did not know their value, nor even the genus to which they belonged, he is unable to give me any particulars of their capture, or of the precise locality in which they occurred. Both species differ in many essential characters from A. insolens; A. Le Contei, besides having a strongly elevated carina on each elytron, is marked with longitudinal stripes of red, which in life are probably very conspicuous, and A. Josephi is of a dull black colour without any tinge of brown, much more depressed and narrower in form, and also differs from both its congeners in the relative proportions and sculpture of all parts of the body.

By the urgent desire of Dr. Le Conte, who has carefully examined both species, I take this means of announcing their occurrence and publishing their descriptions.

# Amphizoa Josephi, sp. nor.

L. c. 5½ lin.—Oblongo ovalis, depressa, rugose punctata, obscure nigra, haud nitida, pedibus atque antennis nigris.

Head rather short and broad, finely and very closely punctured, the interstices not shining, with a very wide longitudinal depression on each side near the eye; eyes small, not prominent; antennæ moderate, black.

Thorax short, transverse, widest near the middle, with the sides much rounded and closely crenate, the anterior angles produced, the posterior margin slightly bisinuate with the angles acute, rugosely and very closely punctured, with the interstices not shining, with a slightly impressed longitudinal channel not extending to the anterior margin, and a broad transverse impression near the anterior and posterior margins.

Scutellum short, rounded at the sides, rugosely punctured.

Elytra oblong-oval, widest behind the middle, punctatestriate, with eight strice, interstices closely and rather finely punctured, the second and third interstices slightly elevated towards the apex, apex slightly truncate with the sutural angles acute.

Legs simple, rather long and slender, black.

Under parts dull black, moderately punctured; metasternum moderately produced between the coxe, with the extremities rounded and emarginate,

Differs from A. insolens in its smaller size, dull black colour, and almost black pubescence; longer, narrower, and much more depressed form; shape, size, and sculpture of all its parts, especially of the scutellum and thorax, in which last the central line does not extend to the anterior margin and is much less deeply impressed.

Habitat, Vancouver's Island.

# Amphizoa Le Contei, sp. nov.

L. c. 6 lin.—Ovalis, subdepressa, rugose sculpturata, nigro-picea, capite atque pronoto rufo-piceis; elytris ad media in costam sive carinam longitudinalem elevatis, nigro-piceis suturâ, interstitiis striarum, carinâ elevatâ, vittâ sat latâ ad latera atque epipleuris rufescentibus; pedibus atque antennis rufo-piceis.

Head moderate, quadrate, more finely punctured than the thorax, with a deep longitudinal impression on each side near the eye; eyes small; antenna and palpi moderate rufo-piceous.

Thorax rufo-piceous, with the sides rufescent, short, transverse, widest at the base, with the sides rounded near the middle, strongly margined, with the margins faintly crenate, anterior angles much produced, posterior margin nearly straight with the angles acute, not produced; rugosely punctured, with a deep central channel, crossed by transverse foveæ near the base and apex and in the middle, sides depressed, with a semicircular elevation on each side near the middle.

Scutellum piecous, triangular, rugosely punctured, with a longitudinal impression on each side near the middle.

Elytra oval, widest at the middle, rugosely punctured, punctate-striate, with a carina between the fourth and fifth striæ strongly elevated anteriorly, but disappearing towards the apex; piceous with the suture, elevated carina, interstices, a rather broad vitta near the sides, and the epipleuræ rather brightly rufescent, apex slightly truncate, with the sutural angles acute.

Legs moderate, slender, simple, rufo-piceous.

Under parts piceous, deeply punctured, metasternum much produced between the coxe with its apex deeply bifid, each portion strongly divergent, rounded, and deeply emarginate.

Differs entirely from A. insolens in shape and sculpture, in the form of each part of the body, and in the elevated carina of the elytra.

Habitat, Vancouver's Island.

Description of a new Australasian Species of Trichopterygia: by the Rev. A. Matthews, M.A., Oxon.

# Ptenidium Lawsoni, Sharp MS.

L. c. <sup>68</sup> lin.—Ovale, convexum, castaneum, nitidum, pilis brevissimis flavis parce vestitum, capite sat parvo, impunctato; pronoto modico, capite parum longiori atque latiori, pone medium latissimo, punctis magnis, foveolatis, remotis, ad basim ordine transverso irregulariter dispositis, interstitisque glabris nitidis per totum ornato: lateribus marginatis rotundatis, ad basim contractis, angulis basalibus obtusis; scutello magno, glabro, punctis duobus magnis ad basim impresso; elytris ovalibus, ante media latissimis, punctis magnis profundis confertim ornatis, lateribus marginatis, apice lato rotundato; pedibus sat longis, lete flavis; antennis longis gracilibus pallide flavis.

Head rather small, smooth, and shining, impunctate, furnished with a few long recurved hairs, with the margins of the clypeus distinctly reflexed near the eyes and antennae; eyes moderate, prominent; antennae long and slender, pale yellow.

Thorax moderate, longer and wider than the head, widest behind the middle, irregularly covered throughout with very large foveolate punctures, which near the base are arranged in an irregular transverse row, the interstices smooth and shining, the sides margined and rounded, contracted towards the base, the basal margin nearly straight, the angles obtuse.

Scutellum large, triangular, somewhat acuminate, smooth and shining, with two large foveolate punctures near the middle of the base.

Elytra oval, widest before the middle, rather longer and wider than the head and thorax, closely covered with large and deep punctures, with the interstices smooth and shining, the sides margined, the apex paler, broad, and much rounded.

Legs rather long and slender, the tibiæ moderately dilated towards their apex, bright yellow.

Underparts castaneous, with the mouth, prothorax, and terminal segments of the venter paler.

A very distinct and pretty species. In its foveolate punctuation it resembles *Pt. punctuatum*, but is easily recognized by its bright castaneous colour and more ovate form, and especially by the absence of the smooth impunctate and very shining space on the disk of the thorax, so conspicuous in the latter species. Three specimens were found near Auckland, in New Zealand, by Mr. Lawson, and forwarded by him to Dr. Sharp, through whose kindness I received the pair from which this description has been made.

Description of a new Species of Pseudacræa in the Rev. Mr. Cornthwaite's Collection: by A. G. Butler, F.L.S., F.Z.S., &c.

#### GENUS PSEUDACRÆA. Westwood.

### Pseudacraa simulator, n. sp.

2. Wings above olive-brown with the nervures and intermediate folds black; frontwings with basal area blackish; five black spots at base, three within cell and two below it, two of them touching base, that within cell having a white pupil, all of them with a griseous iris; a broad white band nearly equal in width throughout (interrupted by the first and second subcostal branches, the radials, upper disco-cellular, and second and third median branches), crosses the centre of the wing obliquely from costal nervure to below centre of first median interspace; three white rays on inner margin: hindwings with base tawny; eleven black spots, the two touching the base being largest and having conspicuous white pupils; a broad externally diffused white band crosses the wing from inner margin to costal nervure, and is about twice as broad at its lower as at its upper extremity: body moderately robust, thorax black, white-spotted, abdomen bright ochre-vellow, with diffused dorsal black stripe; antennæ black, palpi wanting, but apparently bright ochre-yellow.\*

Wings below paler than above; an additional black spot towards end of frontwing cell; otherwise as above: expanse of wings, 3 inches, 4 lines.

West Africa. Coll. Rev. T. Cornthwaite.

This species is a remarkable mimic of Acraa (Planema)
Euritea 9: it is allied to P. Imitator of Trimen.

<sup>\*</sup> A remnant of one of them remains sticking to the proboscis.

Descriptions of some new Pericopides in the Collection of Mr. W. Wilson Saunders: by A. G. Butler, F.L.S., F.Z.S., &c.

# Pericopis Fantasma, sp. nov.

Alæ anticæ supra area apicali-externa et area interna late nigro-fuscis, costa, plaga disco-cellulari et area discodiscoidea pallide-fuscis, fascia lata subcuneiformi maculam disco-cellularum includente, sordide et pallide ochracea, puneto basali rosacea, venis nigro-fuscis: posticæ flavissime, marginibus late nigris, sed costa apud basin fuscescente, litura disco-cellulari venisque nigris; corpus thorace nigro-fusco, collo flavo, tegillis roseo notatis: abdomine flavo, fascia dorsali nigro, ano coccineo.

Alæ subtus fuscæ, anticæ area basali et macula discocellulari nigrescentibus, fascia subcuneiformi flavissima maculam disco-cellularem includente, puncto basali coccineo; posticæ fuscæ, plaga media pyriformi flavissima, venis nigris, area interna flavo strigosa, puncto basali coccineo: corpus fuscum; abdomine lateraliter flavo macu-

lato, ano coccineo: exp. alar. unc. 2, lin. 6.

Bogota.

One of the most beautiful of the *Pericopides*, it is nearly allied to P. Parnassiodes.

# Pericopis Lucifer, sp. nov.

Alæ anticæ rufo-fuscæ, plaga cuneiformi basali discodiscoidea, fascia obliqua postmedia, et fasciola pone cellam, hyalino-albidis, a venis interruptis; posticæ niveæ, area interna grisca, marginibus costali et externa, litura discocellulari venisque nigris: corpus thorace fusco, collo albo, tegillis luteis; abdomine pallide caruleo, fascia dorsali fusco, ano aurantiaco; alie subtus fere velut supra; anticie fasciis hyalino-albis, macula basali aurantiaca; posticae macula basali aurantiaca: corpus album, thorace fuscescente, ano aurantiaco: exp. alar. unc. 2, lin. 3.

Espirito Santo.

Allied to the preceding species: the Addua Inclusa of

Walker also belongs to the same group, but is more nearly allied to P. Parnassiodes.

# Pericopis Sibylla, sp. nov.

Alæ anticæ supra fuscæ, area basali, fascia lata postmedia et altera subapicali hanc infra cellam conjungente hyalino testaceis, in costam flavis, a venis nigris interruptis, puncto basali fulvo; posticæ ochraceæ, margine costali late fusca, margine externo et litura disco-cellulari nigro-fuscis, costa et punctis tribus apicalibus in serie submarginali, fulvis, punctis quatuor anali-submarginalibus albis: corpus prothorace nigro flavo alboque punctato: meso- et metathorace fusco, abdomine luteo, fascia dorsali cinereó-fusco

Alæ anticæ subtus fuscæ flavo-hyalino trifasciatæ, punctis submarginalibus albis, macula basali fulva; striga interna ochracea; posticæ pallide ochraceæ marginibus costali et externo late nigris, costa, maculis subapicalibus et lunulis subanalibus submarginalibus, fulvis, punctis antemarginalibus albis: corpus thorace fusco; abdomine flavo, lateraliter cinereo: exp. alar. unc. 2, lin. 1.

Espirito Santo

Allied to P. Nubila.

# Pericopis Flora, sp. nov.

3. Alæ anticæ supra velut in P. Leucophæa; posticæ fere velut in P. Leucophea fascia autem coccinea duplo latiore; alse subtus fere velut in P. Leucophaa, fascia autem posticarum multo latiore, ad apicem continuata: exp. alar. unc. 1, lin. 11.

Q. Alæ supra fuscæ area apicali et fascia cellam transerrante nigro-fuscis, striga subcostali discoidea, a fascia nigro-fusca interrupta flava, puncto basali coccineo, fasciola subapicali lutea a venis nigris interrupta, punctis indistinctis submarginalibus albidis: posticæ nigro-fuscæ fascia lata submarginali maculari coccinea, punctis sex antemarginalibus albis: corpus fuscum, prothorace flavo punctato; abdomine fulvo maculato, ano aurantiaco: alæ subtus fuscæ; anticæ area basali fulvo irrorato, macula

basali coccinea, fascia postmedia luteo irrorato, et fascia subapicali lutea, punctis submarginalibus indistinctis albidis; postica cellula discoidali fulvo irrorata, fascia macularum coccinearum pallidiore, aliter velut supra; corpus cinerescens: exp. alar. unc. 2, lin. 10.

Guatemala. 3, Coll. B.M.; 2, Coll. Saunders. Nearly allied to *P. Leucophæa*, but quite distinct.

# Gyara Clara, sp. nov.

Ake supra hyalino-niveæ velut in *G. Fenestrata*, costa autem einerea, macula basali alba ochraceo cineta, venis nigris: corpus thorace albo, ochraceo maculato, linea dorsali nigra; capite nigro, albo quadrimaculato, antennis albidis fusco-pectinatis; abdomine albo nigro trilineato; ale subtus fere velut supra sed marginibus fusco irroratis et venis areæ basali albis, macula basali ochracea; corpus thorace albo; capite palpis albis nigro annulatis; abdomine albo: exp. alar. unc. 2, lin. 2.

Espirito Santo.

Allied to G. Fenestrata, but very distinct.

Descriptions of several new Species of Thelyphonus: by ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

### PLATE V.

Mr. Whiteley having lent me some *Thelyphoni* from Birmah, I have carefully reexamined the specimens in the Collection of the British Museum, the result of which has been to convince me that the species of this genus are less subject to variation than I supposed them to be when I wrote my Monograph. The following species therefore remain to be described as new:—

# 1. Thelyphonus Psittacinus, n. sp., fig. 2.

Allied to *T. Rufimanus* (fig. 1), but at once distinguishable from the greater size and less dentated character of the cheliceres.

Same colours as in *T. Rufimanus*, excepting that the basal joint of cheliceres and the abdomen are blacker below.

Cephalothorax with the sides slightly more parallel, abdomen with stignatiform depressions rather better marked, legs slightly more robust, otherwise as in T. Ruftmanus; cheliceres more minutely and sparsely tuberculose, first joint broader in front, terminal spines longer, second joint broader, the inner tooth more widely separated from the others, third joint longer, the spinous inner edge rounded off, fourth joint altogether larger, its process and inner edge not dentated; chelæ altogether larger and more than twice as broad, the inner edge below the fixed finger projecting towards the process of fourth joint, fixed finger much shorter, moveable finger broader, longer, and more curved at the end.

Length of cephalothorax and abdomen, 1 inch, 11 lines.

Silhet (Stainsforth). 4 specimens. B.M.

We have 11 examples of the allied *T. Rufimanus* in various stages of growth: *T. Psittaeinus* is in Mr. W. Wilson Saunders's Collection from N. India.

# 2. Thelyphonus Parvimanus, n. sp., fig. 3.

Allied to *T. Stimpsonii*, but differing in its brighter colouring, and in its more rugose and spinose cheliceres.

Colours as in T. Proboscideus, excepting that the undersurface is redder

Cephalothorax, abdomen, and legs as in T. Proboscidrus; cheliceres with basal joint terminating in a strong short curved spine, bearing a short tooth on its inner edge, second joint feebly punctured, with five teeth above as in T. Antillanus, and one more or less bifid tooth below, third joint feebly and sparsely punctured, with one strong tooth below, fourth joint more coarsely but sparsely punctured, with broad suddenly acuminated terminal process, bearing two teeth externally and finely serrated internally, also a small tooth above and below on internal margin; chelæ small, very coarsely punctured, both fingers acuminate and setose, the fixed finger finely serrated externally, a small tooth on underside near base of moveable finger.

Length 1 inch, 1 line to 10½ lines.

Ceylon (R. Templeton). 2 specimens. B.M.

Also in Mr. Saunders's Collection.

# 3. Thelyphonus Philippensis, n. sp., fig. 5.

Allied to T. Stimpsonii, but much more rugose.

Colours of preceding species.

Cephalothorax, abdomen, and legs almost as in *T. Stimpsonii*, cheliceres with basal joint the same, second joint with five teeth above and two below, coarsely tuberculate, third joint rugose, with a strong spine on inner surface below, fourth joint smooth, finely and sparsely punctured, its inner edge bearing two small spines, terminal process dentate on both sides, a minute terminal tooth about the middle of inner surface; chelæ coarsely but sparsely punctured, setose, with simple fixed and moveable fingers, and at origin of latter a short terminal tooth.

Length 9 lines.

Philippines. B.M.

A local form of T. Stimpsonii; specimens from Siam

and Waigiou are in Mr. Saunders's Collection. It is nearly allied to *T. Linganus*, but is less rugose, with the cheliceres more minutely toothed.

# 4. Thelyphonus Sepiaris, n. sp., fig. 6.

Allied to *T. Caudatus*, easily distinguishable by the shortness of the teeth on second joint of cheliceres, the larger and more rounded cheke and strongly excised termination of the moveable finger.

Colours of preceding species and of *T. Caudatus*, excepting that the abdomen is redder below and has a tendency

to exhibit the red spots of T. Rufipes above.

Cephalothorax and abdomen as in *T. Caudatus*, legs slightly less rugose; cheliceres setose internally with basal joint as in *T. Caudatus*, second joint broader and more tuberculate, with six short sharp teeth above (two of them being separated by a long interval from the others), and two short blunt teeth below, third joint coarsely and densely punctate, with a minute tubercle on inner surface, fourth joint coarsely but sparsely punctate, terminal process considerably longer than in *T. Caudatus*, dentate on both sides; cheke broad, shining, coarsely but sparsely punctate, fixed finger short, cuneiform, moveable finger with a distinct depression below the tip, a minute tooth below its origin.

Length 1 inch, 3 lines.

Tongoo, Birmah. Coll. Whiteley. Ceylon. 2 specimens. B.M.

Certainly distinct from *T. Caudatus*, of which however the *T. Spinimanus* of Lucas proves to be the young form: Mr. Whiteley having lent me specimens in two stages of growth from Birmah.

# 5. Thelyphonus nigreseens, n. sp., fig. 4.

Allied to T. Caudatus and the preceding species and in some respects intermediate between the two.

Colours above black, legs pitchy, abdomen below pitchy. Cephalothorax, abdomen, and legs as in *T. Caudatus*, perhaps rather more rugose; cheliceres with basal and

second joints nearly as in preceding species, but more rugose, third joint very rugose, with distinct blunt tubercle above and below, fourth joint coarsely punctate, with terminal process longer and more slender than in *T. Caudatus*, but shorter than in *T. Sepiaris*, dentate on both sides; cheke nearly as in preceding species, but narrower, more densely punctate, and with more acuminate moveable finger.

Length 1 inch, 2 lines.

Tenasserim (Packman). 1 specimen. B.M.

Included, in my Monograph, amongst our examples of *T. Caudatus*, from which, however, it is perfectly distinct: it is doubtless a local form of *T. Sepiaris*. A second example in the British Museum, without locality was found in the Banksian Collection.

# Descriptions of new Species of Australian Cetoniidae: by OLIVER E. JANSON.

# Hemipharis castanea, n. sp.

Castanea, parum nitida, capite scutelloque nigris, clypeo profunde emarginato, marginibus elevatis, thorace subtiliter punctato, pygidio acuminato. Long. 14-16 lin., lat. 7-8 lin.

var.: corpore toto castaneo.

Reddish-brown, head and scutellum black, the former punctate; clypeus deeply emarginate, its margins elevated.

Thorax finely punctate, the punctures coarser towards the margins, a small obscure spot on each side, the base narrowly edged with black, strongly bisinuate.

Scutellum sparsely punctate.

Elytra somewhat coarsely punctate, the punctures arranged irregularly in rows; apex strigose, suture depressed behind the scutellum, but raised posteriorly, a pitchy spot on the shoulder.

Pygidium acuminate, transversely strigose.

Beneath pitchy red, penultimate segment of abdomen with a row of shallow punctures; apex of mesosternum produced, narrow and flat.

Legs reddish; knees and tarsi piceous, anterior tibite with two sharp teeth on the outer edge, the spines at the apices of all the tibite long and sharp.

The female differs from the male in having a much broader form, the elytra more finely punctured, and in the penultimate segment of the abdomen having a number of shallow punctures, from each of which issues a short hair, the other segments have a single row of similar punctures. The anterior tibiae are as in the male, but the intermediate and posterior tibiae are acutely dentate.

N. W. Australia (Nicol Bay). J., Coll. Sharp; q, Coll. Parry, Higgins, B.M., Janson.

Most nearly allied to *H. atripennis*, Macl., a specimen of which, from Count Castlenau's Collection, has been kindly lent me for comparison by Major Parry, but from which it differs in its less robust form, the colour and punctuation of its elytra and head, and its narrow acutely margined clypeus, and finally by the four posterior tibiae of the female being armed externally with an acute tooth in the middle, whereas in *H. atripennis* they are simple, and by the nunctate abdomen in the female.

Several of the specimens which I have seen are entirely reddish-brown.

# Hemipharis speciosa, n. sp.

Elongata, auro-viridis, caruleo tineta, parum nitida, elypeo profunde emarginato, thorace elytrisque punctatis. Long. 11-12 lin.

Elongate, slightly shining, golden-green with a bluish tint, pygidium, underside, legs, and antennæ with a reddish tint.

Head thickly punctate, clypeus strongly emarginate.

Thorax very finely punctate, with a few coarse punctures on the lateral margins.

Scutellum with a few punctures at the base.

Elytra slightly narrowed behind the middle, faintly punctate, with some slight indications of strice, lateral margins, apex and pygidium strigose.

Beneath and legs strigose and punctate.

N. W. Australia (Nicol Bay). Coll. Sharp, Janson.

Very nearly allied to H. insularis, G. et P., a native of Queensland: differs from it in colour, in being more depressed, and more strongly punctate.

### Schizorhina concinna, n. sp.

Viridis, nitida, elypeo emarginato, elytris quadri-sulcatis, sulcis cinereo-pilosis; subtus cinereo-villosa. Long. 9 lin.

Entirely of a shining green; base of head, elytra, palpi, and antennæ with a coppery tinge.

Head thickly and coarsely punctured, the punctures finer and sparser at the base, elypeus slightly emarginate.

Thorax very finely and remotely punctured.

Scutcllum short, triangular, depressed in the centre, with a few punctures at the base.

Elytra depressed near the scutellum; each with four furrows which are punctured and thickly lined with short ashy pubescence; the first sutural, entire, narrow, and shallow at the base; the second curved, abbreviated at the base and apex; the third straight, likewise abbreviated at the base and apex; the fourth marginal, extending from just below the shoulder to the apex, where it unites with the first.

Pygidium transversely rugose, pubescent.

Beneath sparsely punctured, and thickly clothed with cinereous pubescence.

Legs punctured and pubescent; posterior tibiæ with a fringe of hairs on the inner edge.

N. W. Australia (Nicol Bay). Coll. Janson, B.M.

Most nearly allied to S. Phillipsii, Schr., which it somewhat resembles in form and sculpture.

# Diaphonia Parryi, n. sp.

Nigra, subnitida, punctata, elytris ochraceis, sutura, macula magna pone scutellum, calloque humerali, nigropiceis; subtus fulvescenti-villosa. Long. 12-15 lin., lat. 7-8 lin.

Black, slightly shining; elytra pale ochreous, with the suture black; a large common ill-defined patch behind the scutellum, and a small one on each shoulder pitchy black.

Head coarsely and thickly punctured; clypeus deeply emarginate in front, rounded at the sides, with the punctures confluent.

Thorax coarsely and somewhat thickly punctured, with a smooth longitudinal line in the centre.

Scutcllum with a few large punctures interspersed with smaller ones at the base, depressed at the apex.

Elytra very coarsely and shallowly punctured, the punctures sparse near the suture, arranged in several rather irregular rows on the disc, confluent at the sides and apex.

Pygidium slightly pilose, coarsely and shallowly punctured.

Beneath with long fulvous pubescence, sparsely punctured; apex of mesosternum flat, slightly dilated.

Legs punctured; tibiæ with two teeth in the female, simple in the male, which is considerably narrower, more sparsely punctured, and with very long slender tarsi.

South Australia. Coll. Parry, Higgins, B.M., Janson.

This species is most nearly allied to *D. nigriceps*, Blanch., and appears to vary considerably as regards the markings on the elytra, the post-scutellar patch being in some instances nearly obliterated, and in others the humeral spot is dilated internally extending nearly to the suture.

# Diaphonia gulosa, n. sp.

Crassa, nigra, sat nitida, clypeo ad basin thoraceque lateribus flavis, hoc postice ferrugineo bimaculato, elytris ferrugineis, piceo-vittatis, sutura nigra. Long. 10-13 lin.

var.: elypeo flavo bi-maculato, thorace postice immaculato.

Head black, coarsely punctured; clypeus short; apex slightly emarginate, with a yellow spot at the base, antennæ piceous.

Thorax coarsely punctured and pubescent at the sides, smooth in the centre, black, sides (excepting a small black spot) yellow; a narrow band near the anterior margin and two elongate spots in front of the scutellum ferruginous.

Scatellum smooth, black, with a ferruginous spot in the centre; apex depressed.

Elytra slightly depressed behind the scutellum, shining, finely and sparsely punctured, the punctures arranged here and there in indistinct rows, strigose at the apex, ferruginous; suture black, with a slightly raised dark brown vitta running from the humeral to the anal callosities.

Pygidinm strigose, black, with four large yellow confluent spots.

Beneath black, pilose; sides of abdominal segments with large yellow spots; apex of mesosternum very small, round.

Legs black, punctured; external edge of the posterior femora yellow; anterior and intermediate tibiæ with two teeth, the upper one somewhat obsolete; posterior tibiæ with one sharp tooth.

The female is larger and more robust, with a broader clypeus, a punctate scutellum, and a coarser punctuation throughout.

Victoria. Coll. Higgins, Sharp, Janson.

Most nearly allied to *D. dispar*, Newm. The very small mesosternal process, finer punctuation and coloration, will, however, at once distinguish it from its congeners. It is evidently subject to considerable variation in colour: a specimen recently received has only two small yellow spots on the clypeus; the thorax, with the exception of the sides, and the scutellum are entirely black; and the pygidium has merely a yellow streak on each side.

## Diaphonia luteola, n. sp.

Lutea, nitida, capite, thoracis margini antici, elytrorum sutura, et corpore subtus nigris, elytris punctato-striatis. Long  $10\frac{1}{2}$  lin.

Head black, thickly punctate, clypeus emarginate.

Thorax and Elytra pale testaceous, shining: the former

with the basal margin narrowly edged with black, finely punctate; the latter coarsely punctate, the punctures forming three strice on each elytron, the first sutural, the others on the disc; apex strigose, suture black.

Scutellum with a few punctures at the base, testaceous; apex black, somewhat acuminate.

Pygidium testaceous, transversely strigose.

Beneath black, punctate and pubescent; centre of abdomen pitchy; apex of mesosternum broad and flat.

Legs black.

Western Australia. Coll. Higgins, Sharp.

Most nearly allied to D. xanthopyga, Germ., but very different in colour and sculpture.

## Diaphonia vicina, n. sp.

Rufo-testacea, nitida, punctata, clypeo ad basin, thorace lateribus, pygidio, abdominisque lateribus flavis, capite, thorace postice, clytrorum sutura, corpore subtus, pedibusque nigris, thorace postice profunde bisinuato. Long.  $11\frac{1}{2}$  lin.

Head black, closely punctured; clypeus emarginate in front; base yellow.

Thorax, scutellum, and elytra reddish testaceous, shining; the former with the margins paler, finely punctate, with some larger punctures near the hinder angles; basal margin black, strongly bisinuate.

Scutellum edged with black, with a few punctures at the base; the apex somewhat acuminate.

Elytra finely and sparsely punctate, with a number of irregularly scattered punctures, and a row next the suture which is black; apex and margins strigose.

Pygidium testaceous, transversely strigose.

Beneath and legs shining black, punctate, and slightly

pubescent; sides of abdominal segments yellow; the apical spines of the anterior tibæ very acute; apex of mesosternum rounded.

Western Australia. Coll. Higgins, Sharp.

Nearly allied to the preceding but differing in colour, finer punctuation, smaller mesosternal process, less pubescent underside, and in having the thorax produced behind as in the subgenus *Hemipharis*.

## Diaphonia Breweri, n. sp.

Nigra, nitida, thoracis limbo laterali et apicali elytrorumque margine laterali ferrugineis, thorace antice et utrinque postice crebre punctatis, elytris punctis grossis impressis. Long. 9-11 lin.

Shining black; thorax with the sides and a narrow band in front ferruginous; the elytra also margined externally with ferruginous.

 $\mathit{Head}$  smooth; clypeus thickly punctured; apex slightly emarginate.

Thorax smooth on the disc, with some large punctures in front and at the sides, and a group of similar punctures near the posterior angles and a few smaller ones in front of the scutellum, which has a few punctures at the base.

Elytra sparsely covered with large, shallow, oblong punctures, closer at the sides and apex, and from each of which issues a short black hair; penultimate segment of abdomen thickly clothed above with golden pubescence.

Pygidium strigose, slightly pubescent.

Beneath punctate and pilose.

Legs punctured; anterior tibiæ with two acute teeth.

Female rather larger, more strongly punctured; the teeth on the anterior tibia less acute.

Western Australia.

Closely allied to D. cineta, Don., from which it may be

easily distinguished by its more depressed and rather broader form, its closely punctate clypeus, and its punctate thorax and elytra. It appears to be confined to Western Australia, whence I have seen a long series presenting little or no variation as regards form and sculpture, whereas *D. cineta* is apparently restricted to the southern and eastern portions of that continent.

## Eupæcila pullata, n. sp.

Nigra, nitida, thorace subtiliter punctato, angulis posticis obtusis, elytris punctatis, punctis ad basin in striis sat regulariter digestis, femoribus rufo-maculatis. Long. 9½ lin., lat. 5 liu.

Black, shining; clypeus slightly emarginate, coarsely punctured.

Thorax and scutcllum very finely and faintly punctate; the former with a few large lateral punctures, its posterior angles obtuse.

Elytra sparsely and somewhat coarsely punctured, the punctures arranged in irregular rows towards the base.

Beneath with a few short ferruginous hairs; apex of mesosternum broad and obtuse; femora with a large rufous patch.

Lizard Island. Coll. Parry.

Most nearly allied to *E. variabilis*, Macl., from which it may be at once distinguished by its slightly emarginate and coarsely punctured elypeus, the form and punctuation of its thorax and scutellum, its unfringed posterior femora and tibiæ, and the broad and obtuse apex of its mesosternum.

A List of Erotylidae collected by Edward M. Janson, in the vicinity of Santo Domingo, Chontales, Nicaragua, with Descriptions of new Genera and Species: by G. R. Crotch, M.A.

#### MEGALODACNE..

(Type, Ips. fasciata, F.)

I have renamed the genus Dacne of Lacordaire, retaining that name in the sense it was originally given. The present genus is very homogeneous.

Sexual characters are here visible, the anterior or posterior tibiae being curved, and sometimes crenulated; in *M. heros* the last ventral segment is sharply carinate; in all the prosternum is deeply punctured.

Megalodaene quadriguttata, Oliv. Enc. Meth. vi., 434
 (Erotylus) (1791) - Duene quadriguttatus, Lac. Mon.
 Erot., p. 70 (1842) - Duene multifida, Lac. Mon. Erot.,
 p. 70, ♀, var. (1842) - Duene brasiliensis, Lac. Mon.
 Erot., p. 70, var. (1842).

Elongata, nigra, nitida, thorace antice trisinuato (præsertim in mas.), sparse obsoleteque punctato, lateribus late incrassatis, punctis majoribus utrinque subseriatim dispositis; elytris remote ac grosse striato-punctatis, interstitiis sublævibus; corpore subtus sublævi, segmentorum lateribus fortiter punctatis. L. c. 10½-12 lin.

3. tibiis posticis incurvis, intus remote crenulatis, prosterno fortiter punctato.

2. thorace breviore.

"Bred from fungus;" the strice are less strongly punctured than in the specimens from Cayenne and the Amazons.

PSELAPHACUS. Perch. Gen. Ins. Livr. 4, No. 6 (1835).

(Type P. nigropunctatus, Perch.)

This is one of the few sharply defined genera in the

family, by the square emargination of the clypeus; it is confined to Mexico, and Central and South America.

The species are very embarassing, as the variation of colour is very great; further material is required to decide some of the questions.

The species have a wide range, several occurring from the Amazons through Cayenne to Ecuador and Bolivia.

## Pselaphacus distortus, sp. nov.

P. curvipedi simillimus, thorace crebrius punctato, fasciis elytrorum (præsertim ultima) integris, vel vix denticulatis. L. c. 6-7½ lin.

Mexico. Coll. Crotch.

The Nicaraguan specimens differ from the Mexican in having the interstices scarcely punctulate, and the two medial fasciæ decidedly denticulate.

## 3. Pselaphacus vitticollis, sp. nov.

P. dentato affinis, thorace fulvo, margine tenui, vitta discoidali, punctoque utrinque nigris; elytris basi nigra, annulo apicali incompleta. L. c. 5½-6 lin.

N. Granada. Coll. Crotch (Reiche, Chevrolat).

The Nicaraguan specimens differ from those from New Granada in that the central vitta of the thorax is reduced to a basal triangle.

## 4. Psclaphacus signatus, Guer. Rev. Zool. 1841, p. 158.

Also found in Cayenne, Amazons, Columbia, Ecuador (Buckley), and Bolivia.

Syn.: P. signatipennis, Lac. Mon. Erot., p. 84 (1842).

## Pselaphacus Nicaraguæ, sp. nov.

Oblongus, subparallelus, niger, nitidus, capite sat crebre punctato; thorace quadrato, lateribus rotundatis, ante angulos posticos angulos sinuatis, parce subtiliter punctato, punctorum majorum seriebus dorsalibus 2; scutello nigro, lævi: elytris nigris, subtilissime parce punctulatis, leviter

punctato-striatis, striis postice obsoletis, macula humerali ochracea (punctis 2 nigris rotundatis includente), alteraque transverse bilobata apicem versus; corpore subtus fere lævi. L. c. 6 lin.

This is the first species of this section of the genus found north of Panama, it is very like the others in colouring.

#### MEGISCHYRUS. Gen. nov.

(Type Erot. undatus, Oliv.)

The strongly keeled prosternum and loosely jointed club of the antennae give this section some title to generic rank; the species also have a strong common facies. They are found in South and Central America, and in Mexico.

## 6. Megischyrus Nicaraguw, sp. nov.

M. mexicanæ proximus, et forte varietas geographica; differt forma paulo convexiore brevioreque, elytris minus opacis, evidentius punctato-striatis, regione subapicali haud rufo-limbato. L. c. 8 lin.

## Megischyrus sanguinolentus, Lac. Mon. Erot. p. 97 -Ischyrus - (1842).

This species was described from Mexican specimens, but not having seen any individuals from that country, I am unable to say if the Chontales representatives differ in any minute points.

# Megischyrus discipennis, Lac. Mon. Erot., p. 101 - Ischyrus - (1842).

Described from Mexico; the Chontales specimens accord perfectly with the description.

ISCHYRUS, Lac. Mon. Erot., p. 89 (1842).

(Type Erot. quadripunctatus, Oliv.)

This genus, first indicated by Chevrolat in 1836, is now tolerably homogeneous, only the first group being at all exceptional. The coarsely granulated eyes distinguish it from all the other New World genera except *Epytus.*\* The species are numerous and very closely allied. The thorax is rarely margined behind except just round the posterior angles.

- Ischyrus elegantulus, Lac. Mon. Erot., p. 121 (1842).
   Coincides with my specimens from New Granada.
- 10. Ischyrus graphicus, Lac. Mon. Erot., p. 125 (1842).

These, as well as the Mexican exponents of this species, appear to be a southern form of *I. quadripunctutus* with the head more or less rufous.

11. Ischyrus tripunctatus, sp. nov.

Oblongus, postice angustior, capite nigro, parce sat profunde punctato, thorace rufo-testaceo, lateribus antice rotundatis, punctis discoidalibus 3 nigris; scutello nigro lævi; elytris fulvo-testaceis, vix punctulatis, leviter punctato-striatis, fasciis 2 communibus nigris, postice denticulatis (1 basali, 1 pone medium) marginem haud attingentibus; corpore subtus punctulato, rufo-testaceo, epipleuris elytrorum, lateribus pectoris, pedibusque nigris. L. c.  $3\frac{1}{2}$  lin.

MYCOTRETUS, Lac. Mon. Erot., p. 132 (1842).

(Type --- ?)

Distinct by the pentagonal or rounded mentum, antenna

<sup>\*</sup> Epytus, Dej. Cat. Ed. 3, p. 452 (1837) [Type Evot. violaceus, Sturm. Cat., p. 82, Table iv., ig. 38 (1826)] = Oocyanas, Hope, Rev. Zool, 1841, p. 113.—Lac. Mon. Evot., p. 194 (1842).

with a 4-jointed club, and finely granulated eyes. The thorax is margined at the base.

Lacordaire has divided this genus into two sections according to the shape of the mentum, but I find this very difficult to ascertain: he is certainly in error in many cases.

## 12. Mycotretus Savignyi, Lac. Mon. Erot., p. 156 (1842).

Very near M. Lesucuri, but the interstitial punctuation faint, and the legs red.

The single specimen before me accords entirely with those in my collection from Columbia (Reiche, Chevrolat).

## 13. Mycotretus pygmæus, Lac. Mon. Erot., p. 156 (1842).

Sparingly and rather coarsely punctate; I have examples from Cayenne (Lacordaire), Bahia, and Bogota.

## 14. Mycotretus Chontalesi, sp. nov.

Ovatus, ochraceus, nitidus, antennis sat elongatis, clava nigra, distincte tri-articulata; capite distincte punctato, antice leviter impresso; thorace parce punctulato, lateribus rotundatis, basi utrinque sinuato, leviter foveolato punctatoque; scutello punctulato; elytris albidis, lævibus, punctato-striatis, singulis maculis 2 oblongis parallelis in quartam basalem, macalaque communi triangulari (antice paulo producta) nigris. L. c. 2¼ lin.

Allied to M. lepidus.

# AEGITHUS, Fab. Syst. El. II., p. 9 (1801).

(Type Cocc. surinamensis, Linn.)

Distinguished by the very small thorax, deeply emarginate in front and obliquely truncate on either side at the base. The elytral punctuation is gemellate or often absent.

 Aegithus quadrinotatus, Chevr. Col. Mex. Cent. 1., fasc. 4 (1834) - Lac. Mon. Erot., p. 283 (1842) - Aegithus elathratus, Lac. Mon. Erot., p. 282 (1842).

Ovatus, ater, elytris convexis, vix striato-punctatis, testaceo-flavescentibus, sutura, singuloque maeulis magnis nigris. L. c. 3½-4 lin.

The Chontales specimens accord with those from Mexico

(Orizaba, Teapa). Coll. Chevrolat.

Aeg. elathratus differs only in having the spots much larger, and the punctuation apparent.

Intermediate coxal line short but evident.

## 16. Aegithus Jansoni, sp. nov.

Breviter ovatus, convexus, ochraceus, capite antice impresso, cum thorace levibus; hoc marginibus anguste lineisque tribus nigris (1 discoidali, 1 utrinque disci); scutello magno, testaceo, levi; elytris subtiliter gemellatopunctato-striatis, interstitiis levibus, margine suturaque anguste nigris, disco toto fusco, ochraceo-cincto. L. c. 4 lin.

Intermediate coxal line present.

Acgithus cardinalis, Chevr. Col. Mex. Cent. I., fasc. 4 (1834) - Lac. Mon. Erot., p. 284 (1842) - Acgithus rufipennis, Chevr. Col. Mex. Cent. I., fasc. 4 (1834) - Lac. Mon. Erot., p. 284 (1842).

Late ovatus, ater, elytris corallinis lavibus. L. c. 4-6 lin. Mexico, Teapa; Costa Rica; Panama; Nicaragua.

rar. A, capite thoraceque supra infraque nigris=ruft-pennis, Chevr.

var. B, capite thoraceque rufo, hoc tertia discoidali nigra, prosterno nigro, epipleuris rufis=cardinalis, Chevr.

var. C, capite thoraceque rufo, prosterno et epipleuris rufis=meridionalis, Crotch.

I consider these three forms referable to one species, though the variation in outline is considerable.

The intermediate coxal line is well marked.

The Chontales specimens all pertain to var. C (Aeg. meridionalis, Crotch).

 Aegithus clavicornis, Linn. Syst. Nat. Ed. x., p. 370 (Chrysomela) (1758) - Coccinella surinamensis, Linn. Cent. Ins., p. 10 (1763) - Aegithus surinamensis, Lac. Mon. Erot., p. 285 (1842).

Specimens in my Collection are from Costa Rica, Columbia. Ecuador, Amazons, Brazil.

Distinct by its smooth elytra, which together with the abdomen are testaceous. Linnaeus's clavicornis was described from Rolander's specimens, which were again described by De Geer, so that the identity of the two is certain.

Intermediate coxal line distinct.

## BRACHYSPHŒNUS, Lac. Mon. Erot., p. 296 (1842).

## (Type —?)

This genus is still a magazine of different forms, but I have not found any good characters whereby to separate them. Sphenocus and Typocephalus appear to me good genera. B. irroratus and B. multinotatus are Prioteli, and others are mixed up in the several sections.

## Brachysphænus zonula, sp. nov.

B. circulo proximus, sed humeris late nigris, annulo flavo antice posticeque denticulato distinctis. L. c. 3 lin.

Ecuador (Buckley).

I cannot separate the single specimen from Chontales now before me from the species characterized above taken in Ecuador by Mr. Buckley. It differs only in that the yellow margin extends up to the shoulder, instead of obliquely across as in Mr. Buckley's specimens.

 Brachysphænus nigropictus, Lac. Mon. Erot., p. 387 (1842).

Occurs likewise in Venezuela. Coll. Chevrolat.

## EROTYLUS, Fab. Syst. Ent., p. 123 (1775).

(Type Cocc. gigantea, Linn.)

This genus seems to me somewhat difficult to characterize, as Lacordaire has comprised species with the rostrum parallel and coarctate in it.

All are of tolerably large size, and more or less visibly

gemellate-punctate.

## Erotylus Nicaraguæ, sp. nov.

Ovatus, niger, nitidus, thorace punctato, elytris laete flavis, sat regulariter gemellato-striatis, maculis nigris tessellatis, margine epipleurisque rufis. L. c. 74 lin.

The geminate strine are very closely approximate, and separate the black spots from each other by yellow lines.

#### CYPHEROTYLUS, gen. nov.

## (Type Chrysom gibbosa, Linn.)

The genus appears to me more defined than any of those with a narrower rostrum, except perhaps *Homcoelelus*. The uniform coloration (black, elytra pale whitish, with impressed irregular black dots), the thorax margined at the base, the interstitial punctuation hardly apparent, the sexual differences, all combine to separate it at once.

The acute gibbosity of  $\hat{C}$  sphacelatus fades gradually

into the convex form of C. Goryi.

## Cypherotylus dromedarius, Lac. Mon. Erot., p. 455 (Erotylus) (1842).

This does not differ sufficiently to entitle it to specific distinction; the elytral punctures are rather finer, and the median black spot is larger.

## 23. Cypherotylus impressopunetatus, sp. nov.

Niger, paulo abovatus, acute convexus (sed haud gibbosus); thorace lateribus rectis, antice angustato, basi

impresso, subtiliter parcissime punctulato; elytris ochraceis, punctis majoribus nigris irregulariter impressis, apice ipso nigro. L. c. 9½ lin.

Allied to C. stillatus, Kirsch (Berl. Ent. Zeit. ix., p. 100), from Bogota, but with smaller punctures on the elytra.

The male has thickened femora and an anal tuft.

## 24. Cypherotylus Jansoni, sp. nov.

C. Goryi simillimus, et forte ejus mera varietas geographica. Differt tantum elytris fere immaculatis, fascia media tantum maculis 2 parvis indicata. L. c. 111 lin.

## ZONARIUS (Hope), Lac. Mon. Erot., p. 468 (1842).

(Type X. xanthomelas, Lac.)

Hope's genus contained the species now referred to it, but his characters were taken from a *Pecilesthes*; it is doubtful, therefore, whether his name ought to be allowed to stand.

It is closely allied to *Erotylus*, but the rostrum is longer and more narrowed at the base. It is confined to Mexico and Central and South America.

#### 25. Zonarius Jansoni, sp. nov.

Z. zebræ affinis, sed elytris fascia prima utrinque abbreviata (macula oblonga formante), fascia secunda augustiore, ad suturam interrupta, postice paulo lobata differt. L. c. 5 lin.

This adds another to the little group of species allied to Z. zebra.

## SCAPHIDOMORPHUS (Hope), Rev. Zool. 1841, p. 111.

(Type Chrysom, quinque-punctata, Linn.)

This differs but little from Zonarius, yet it is easy to recognize it by the shape of the thorax, the emargination being circular as in Megaprotus.

Erichson (Arch. f. Nat. xiii., p. 177) has separated the 2nd section—without a carinate prosternum—under the name of *Prepopharus*, but I do not see that this is necessary.

The males have not the pilose spot on the first ventral segment, and in other respects it is very near *Brachy-sphanus*.

#### 26. Scaphidomorphus xanthomelas, sp. nov.

Ovatus, testaceus, sublævis, capitis vertice, antennis, geniculis, tibiis, tarsisque nigris; thorace fascia abbreviata antica, margine basali (utrinque recurva) fere ad angulos posticos, nigris; elytris læte flavis, margine externo tenue, fasciis duabus utrinque abbreviatis, paulo obliquis (1 subbasilari, 1 in medio), maculaque triangulari (puncto fusco includente) nigris. L. c.  $4\frac{1}{2}$  lin.

# HOMOEOTELUS (Hope), Rev. Zool. 1841, p. 112 (scripsit Omoiotelus).

(Type Erot. testaecus, F.)

#### 27. Homocotelus confusus, sp. nov.

H. testaceo affinis, sed minor, magis depressus, regulariter ovatus, thorace scabro-punctato, scutello rufo, elytris haud flavo-marginatis, femoribus apice extus, tibiis tarsisque nigris. L. c. 51-61 lin.

The above diagnosis is drawn up from a specimen from Guatemala, with which the Chontales examples coincide exactly, as do likewise others extant in my collection from Costa Rica, in the specimens from Venezuela the femora are entirely red.

# 28. Homocotelus Jansoni, sp. nov.

H. mexicano affinis sed corpore abrupte ovato, antice posticeque magis acuminato, colore laete aurantiaco, (scutello nigro), thorace longiore, antennis longioribus, interstitisque elytrorum distinctius punctulatis facile distinguendus, L. c. 44 lin,

Descriptions of new Species of Lepidoptera: by Arthur G. Butler, F.L.S., F.Z.S., &c.

## FAMILY NYMPHALIDÆ. Westwood.

#### SUB-FAMILY DANAINÆ. Bates.

GENUS METHONA. Doubleday.

1. Methona Confusa, n. sp.

Similar, in the pattern and coloration of the upper surface, to *Thyridia Ceto*, but the body with a double parallel series of conspicuous white spots; below very similar to *T. Ceto*, but the costal yellow streak of secondaries abbreviated and followed by a white spot: femora of front legs creamy: expanse of wings, 3 inches, 7 lines.

Tapajos (Bates); Peru, from Mr. Cutter. B.M.

This is apparently the species figured by Bates as Methona Psidii; the Papilio Psidii of Linnaus is, however, a Thyridia; hence the alteration of the generic name in Kirby's Catalogue was unnecessary.

GENUS DIRCENNA. Doubleday.

## 2. Direcnna Obfuscata, n. sp.

Q. Allied to *D. Xantho*, but with the base of primaries black; the white spots near outer margin obsolete, yellow-tinted; secondaries black, crossed towards base of inner margin by a large suboval hyaline tawny patch; two hyaline spots on either side of third median branch, the lower one cordate and enclosing a yellow spot: pterygodes white spotted: primaries below with three white decreasing submarginal spots towards apex; secondaries with tawny

costal streak and four submarginal spots of the same colour near anal angle; eight submarginal white spots; otherwise as above: expanse of wings, 2 inches, 10 lines.

Ega (Bates). B.M.

Excepting in the characters given above, this species agrees with D.  $Xantho \circ of Felder$ .

#### GENUS CERATINIA. Hübner.

#### 3. Ceratinia Intermedia, n. sp.

 $\mathcal{J}, \mathfrak{Q}$ . Allied to C. Fimbria; but with the subhyaline zigzag band of primaries placed as in C. Fenestella, leaving a hyaline spot between median branches, and the submarginal spots yellow; secondaries with central black band abbreviated; submarginal spots yellow: wings below nearly as above, but the submarginal spots white: expanse of wings,  $\mathcal{J}$  1 inch, 11 lines,  $\mathcal{Q}$  2 inches, 4 lines.

Bogota (Stevens). B.M.

Allied to C. Fenestella and C. Fimbria.

## 4. Ceratinia Fulminans, n. sp.

σ, φ. Allied to *C. Fimbria*; all the markings more opaque; zigzag band of primaries as in *C. Fluonia*, but narrower and more acuminate at the angles; submarginal spots yellow; secondaries opaque; costa, apex, outer margin, and three spots below median nervure, black; nervures at apex tawny; a yellow spot beyond end of cell: wings below nearly as above, but nervures of apical half of primaries tawny and last two submarginal spots white; secondaries with a large yellow patch within cell, and seven marginal white spots: expanse of wings, 2 inches, 4 lines.

Bogota (Stevens). B.M.

## 5. Ceratinia Lurida, n. sp.

Allied to C. Norella, primaries above black; apical half almost covered by a large hyaline white patch; interrupted

at end of cell by a cuneiform costal disco-cellular black spot; seven submarginal white points; secondaries orange tawny; costa apex and outer margin broadly black; a diffused whitish spot at end of cell; a similar spot just beyond, and a small spot at apex; thorax black, head whitespotted, abdomen brown: primaries below as above; secondaries with hyaline whitish spots at end of cell concurrent; seven submarginal white spots: expanse of wings, 2 inches, 5 lines.

Pucartambo, Peru (Whitely). B.M.

Seems nearly allied to *Ceratinia Tricolor* of Salvin from N. Bolivia.

#### GENUS ITHOMIA. Hübner.

## 6. Ithomia Nigrimargo, n. sp.

¿3. Allied to I. Lagusa, resembles Ceratinia Adelinda: wings above hyaline, with the veins black; margins broadly black; secondaries with a ferruginous anal spot; body with the thorax black, white-spotted; abdomen dark brown above, paler below; antennae black with the club orange; wings below nearly as above; primaries with the internal area silky; two apical white points; secondaries with a basi-costal streak and the median nervure sulphur-yellow; five submarginal white points; a large anal spot, the first median branch and the submedian nervure orange-ferruginous: expanse of wings, 2 inches, 4 lines.

Cuenca (Fraser). B.M.

Much like  $H_y$ menitis Ino and Ceratinia Adelinda in general appearance.

#### GENUS HYMENITIS. Hübner.

# 7. Hymenitis Albinotata, n. sp.

Nearly allied to *H. Kedemu*, same general pattern; larger, the primaries more arched; all the dusky markings much deeper; primaries with two distinctly white spots at apex; secondaries below with seven conspicuous marginal

white spots, otherwise as above: expanse of wings, 2 inches, 8 lines.

Bogota (Stevens).

A local representative of H. Kedemu.

#### GENUS MECHANITIS. Fabricius.

#### 8. Mechanitis Fallax, n. sp.

♀. Primaries tawny, yellow and black; similar to M. Menophilus♀ but with a more or less pronounced yellow spot towards apex, and the oblique yellow band more angulate; secondaries with the sub-costal area and the apical half of the outer margin broadly tawny; costa silky brown: body as in M. Polymnia: primaries below nearly as above, the outer margin narrowly tawny to near apex; the yellow apical spot (where present) terminating at each end in a tawny nebula; seven marginal white points; secondaries tawny, crossed by three more or less macular black bands, the spots of the third band distinctly separate large, suboval, placed on anal area and terminating on outer margin in white points, the latter seven in number: expanse of wings, 3 inches, 4 lines.

Bogota (Stevens). B.M.

Allied to M. Egacusis and M. Menophilus, but nearer to the latter: it parallels Melinaa Mucme of Linnaeus.

## 9. Mechanitis Deceptus, n. sp.

Only differs from M. Menophilus in the tawny instead of yellow band of primaries: it parallels Melinau Methone, Ceratinia semifulva, Eresia ithomiola, &c.

Cuenca (Fraser); Bolivia (Bridges); Rio Napo (Bates?) B.M.

This species being mistaken by Mr. Salvin for the M. Methone of Hewitson, he has redescribed the Melinaa as M. Cydippe; but a careful comparison of Hewitson's figure with the two species shews that the Melinaa and not the Mechanitis is the insect represented, the black spots of primaries being considerably larger in the Melinaa than in the Mechanitis.

## 10. Mechanitis Veritabilis, n. sp.

Intermediate in character between M.Utenaia and M.Lyeidice; differs from the latter in the absence of a yellow patch across centre of median branches in primaries and in the small isolated black spot between the first and second branches; in the more distinctly separated and longer yellow spot (terminating the oblique discal band) between second and third branches; in the less evident median yellow streak (generally absent), and the broader macular band below it: expanse of wings,  $\delta$  3 inches,  $\varphi$  3 inches,  $\varphi$  4 lines.

Bogota (Stevens); Venezuela (Dyson). B.M.

We have seven examples of this species, the same number of *M. Utcnaiu* and six of *H. Lysidice*; they all seem perfectly distinct.

#### GENUS MELINIEA.

## 11. Melinau Parallelis, n. sp.

Closely allied to *M. Messatis*, but differing in its brighter colouring and the conspicuous black discal bar across secondaries; it is parallel to *Heliconius Jucundus* and differs from *M. Messatis* precisely as that species does from *H. Ismenius*: expanse of wings, 3 inches, 7 lines.

Panamá (Salvin). B.M.

#### GENUS TITHOREA. Doubleday.

## 12. Tithorea Pseudethra, n. sp.

Allied to *T. Harmonia*, from which it differs in the form of the oblique yellow band of primaries, which terminates obtusely without tricuspid termination, in the more distinctly tawny basal half of primaries; and in the presence of a broad clear yellow band crossing end of cell of secondaries and bounded by the usual black bar: expanse of wings, 3 inches, 3 lines.

Brazil (Argent). 2 examples. B.M.

The above species evidently comes near to *T. Cuparina*, but the secondaries of that insect are described as "precisely as in *T. Harmonia*;" it is parallel to *Melinea Ethra*, Godt (*H. Phosis*, Feld.)

## 13. Tithorea Egaensis, n. sp.

Differs from the Lower Amazon type of T. Harmonia in the almost ferruginous tint of the base of primaries, and the whole of secondaries, also in the greater width of all the black bars, the somewhat wider yellow belt of primaries and the minuteness of the white marginal spots below: expanse of wings,  $\mathcal{J}$  2 inches, 8 lines,  $\mathcal{J}$  3 inches.

Ega (Bates). B.M.

## 14. Tithorea Paronii [Boisduval MS.]

 $\mathcal{S}, \mathcal{P}$ . Allied to T. Bonplandii; above black; a streak above median nervure of primaries, a spot below it, divided by the first median branch, and a broad band across cell of secondaries subhyaline sulphur-yellow; primaries with three or four spots beyond cell, five towards apex and one near anal angle subhvaline white; secondaries with costa and base pale brown; a discal series of twelve subhyaline white spots: body as in T. Bonplandii; primaries below with eight discal and thirteen submarginal cream-coloured spots, between which is a waved streak of dull orange; a spot of dull orange half way between cell and apex; otherwise as above; secondaries with discal series of spots as above and a submarginal series of sixteen cream-coloured spots, between which two series is an irregular macular dull orange band; a series of eight dull orange spots between central yellow band and discal series of spots; a sulphur-yellow subcostal streak at base: expanse of wings, 3 inches, 1 line.

\* Panamá, Central America (Belcher). B.M.

A common insect, mimicked by *Heliconius Perurianus* of Felder, a species which doubtless has a tolerably wide

<sup>\*</sup> From the voyage of the Herald.

range: I have been unable to find any published description of *T. Paconii*, although it appears to be in most Collections.

#### SUB-FAMILY NYMPHALINÆ. Bates.

GENUS DIADEMA. Boisduval.

15. Diadema Wallaceana, n. sp.

3. Allied to D. Antilope and D. Albula; but still more like D. Anomula, from which it differs in the absence of any blue gloss above, in the presence of three white streaks placed obliquely beyond discoidal cell of primaries, and in the larger discal spots towards costa of the same wings; below (in addition to the above distinctions) the submarginal spots of primaries are more evident, and the whitish streaks beyond cell of secondaries are wanting: expanse of wings, 3 inches, 4 lines.

India? B.M.

Mimies Euplica Kinbergi of Wallengren; and was supposed by Mr. Wallace to be the male of D. Anomala; the latter species, however, is nearly alike in both sexes, as evidenced by examples from Borneo now in the Collection; and, were it not so, no advantage could accrue to the female over the male from the blue spot of the primaries, since the supposed male is equally well protected in its brown dress by its resemblance to another species of Euplica.

# 16. Diadema Interstincta, n. sp.

3. Allied to the preceding and to D. Anomala, from which it differs in the absence of the blue shot on upper surface of primaries, and the presence of a creamy discal band in secondaries, interrupted by the nervures and internervular folds; below it only differs in the greater length of the whitish streaks towards abdominal area of secondaries: expanse of wings, 3 inches, 6 lines.

Assam (Warwick). 2 examples. B.M.

This species was considered by Mr. Wallace to be a variety of the male of D. Anomala; it is, however, clearly distinct, and is a mimic probably of Euplea Aleathoë  $\mathfrak{P}$ .

#### GENUS ROMALEOSOMA. Blanchard.

#### 17. Romaleosoma Inanum, n. sp.

 $\mathcal{S}$ ,  $\mathfrak{P}$ . Above like R. Ceres; below sap green; the nervures ochraceous; the fringes white varied; primaries with internal margin broadly einereous; three black spots, forming a triangle, on basal half of discoidal cell; a broad white band placed obliquely beyond cell; apex white; the female with a small black spot at end of cell; secondaries with a small black spot in cell; area between median and submedian nervures densely clothed with ochreous hairs; a broad irregular silvery white band from costal nervure to second branch of median nervure: expanse of wings,  $\mathfrak{F}$  inches, 4 lines,  $\mathfrak{P}$  4 inches, 1 line.

Ashanti (Brooking). 4 specimens. B.M.

Not an uncommon species in Collections; it seems generally to be considered as an extreme variety of *R. Ceres*, but as no intermediates have yet appeared, this is a gratuitous assumption and nothing more.

## 18. Romaleosoma Permixtum, n. sp.

♂. Above like R. Janetta ♂, excepting that the yellow band of primaries is converted into a subtriangular bifid patch, the bases of all the wings are black, and the red subcostal spot of secondaries is wanting: primaries below as in R. Crockeri, excepting that there is a spot of reddishorange between the two black spots forming the base of the triangle in discoidal cell; secondaries as in R. Cyparissa, excepting that the basal patch is reddish-orange shot with lilacine: expanse of wings, 3 inches, 2 lines.

Gaboon ( $Du\ Chaillu$ ). B.M.

A fine insect, uniting the characters of three distinct species already described, but in some respects differing from them all.

#### 19. Romalcosoma Viridinota, Butler,

Lep. Exot., p. 82, n. 3, pl. xxxi., fig. 3 (1871).

3. Nearly resembles R. Janassia ( $\mathfrak{P}$  of R. Medon); but differs above in the less oblique and greener tinted yellow band of primaries, and in the presence of a broad central yellowish green band extending from costa to second median branch of secondaries; below deeper in colour, otherwise almost identical: expanse of wings, 2 inches, 7 lines

Gaboon (Du Chaillu).  $\mathcal{Z}$ ,  $\mathcal{Z}$ , B.M.

The males of *R. Mrdon* and *R. Agnes* seem to differ only in the shape of the yellow band on upper surface of primaries. From an examination of the fine Collection recently made by Mr. Monteiro in Angola, it appears that *R. Mrdon* is the common species there, *R. Agnes* being scarce, whilst at Ashanti and Sierra Leone the latter species is very common to the entire seclusion of *R. Mrdon*.

#### GENUS APATURA. Fabricius.

## 20. Apatura Substituta, n. sp.

¿ Nearly allied to A. Ilia, differs above in the brighter purple shot; the broader trifid tawny band beyond end of cell in primaries and the less lunate character of the submarginal tawny spots of all the wings; the discal series of black spots in secondaries obsolete; the whole disc between the tawny bands being black brown; the central band sharply angulated externally, more so even than in A. Iris; wings below more brightly coloured than in A. Ilia, all the white bands broader; the central band of secondaries as above, but white with a faint rosy shot; submarginal interrupted lilacine lunate band prominent; discal spots of secondaries not so well defined: expanse of wings, 3 inches, 2 lines.

N. China (Pryer); Japan (Bligh). B.M.

This species is a local representative of A. Ilia; it is a well defined form, although less marked in its distinctive characteristics than A. Hera of Felder.

#### GENUS EUNICA. Hübner.

## 21. Euniea Octomaculata, n. sp.

β. Allied to E. Capenas β, differs above as follows—primaries narrower, with four instead of three lilacine spots on basal area, two within cell and two placed transversely below it; anal area brown, not black; white band completely broken through in the centre; subapical lilacine spot narrower and more elongate; secondaries black at base, succeeded by a central broad tawny band, then a dark brown nebula, beyond which the wing becomes pale brown exhibiting two moderately large and two very small black spots; a discal dark brown lunate line; outer margin broadly dusky, the fringe white varied; below very similar to E. Capenas, but all the spots and bands considerably paler: expanse of wings, 2 inches, 1 line.

E. Peru (Degand). B.M.

 $\Lambda$  pretty species, quite distinct from, although allied to  $P.\ Capenas.$ 

#### GENUS PERISAMA. Doubleday.

## 22. P. Boureieri (Boisduval, MS.)

Catagramma Bonplandii var., Hewitson, Exot. Butt. 3, pl. xiv., fig. 72 (1864).

Quito (Bourcier). 6 specimens. B.M. Perfectly distinct from P. Bonplandii.

## 23. P. Albipennis, n. sp.

Catagramma Bonplandii var., Hewitson, Exot. Butt. 2, pl. 31, fig. 66 (1858).

E. Peru (Degand). B.M.

This species has come in such numbers from time to time as to leave no doubt as to its being a good and distinct species.

## 24. P. Lineata, n. sp.

Allied to the preceding, primaries above with the green

band double as wide; a whitish spot towards apex; secondaries below crossed by two augulated black lines as in *P. Bourcieri*, but wider apart: expanse of wings, 2 inches, 4 lines.

Peru, from Higgins. B.M.

## 25. P. Viridinota, n. sp.

Nearly allied to *P. Oppelii*; primaries above with green central band more oblique, so that its lower end is considerably nearer to the external angle; subapical spot smaller and narrower; secondaries irrorated with fine green scales near anal angle, but without submarginal greyish band; fringe ochreous; primaries below with three additional green spots at end of cell; secondaries with the black lines wider apart: expanse of wings, 1 inch, 11 lines.

E. Peru (Degand). B.M.

## 26. P. Ochreipennis, n. sp.

Above like *P. Comnena*, excepting that the green band of secondaries does not extend to apex; below very like *P. Cladia*; primaries with a black line across the apical ochreons patch, two or three green spots between the median branches, and the discoidal ochreons patch slightly tinted externally with rosy: secondaries with the black lines much wider apart and thicker, the outer one much more arched: expanse of wings, 2 inches.

Bolivia (Bridges). B.M.

A very distinct species, which has long wanted a name.

# 27. P. Tristrigosa, n. sp.

Wings above black: primaries marked as in *P. Nyctimene* excepting that the band divided by the first median branch is much more oblique; secondaries with three metallic green streaks beyond cell, the central one being half as long again as the others; below much like *P. Nyctimene*, primaries greyish at base, not ochraceous; all the blue spots beyond cell missing; subapical white band broader and shorter; secondaries paler in colour; black lines much wider apart and more curved; black spots obsolete; a

white dash from end of cell; expanse of wings, 1 inch, 9 lines.

Pucartambo, Peru (Whitely). B.M.

## 28. P. Divergens, n. sp.

Catagramma Humboldtii var. Hewitson, Exot. Butt. 4 pl. Cat. xi., figs. 82, 83 (1868).

Quito. B.M.

Certainly distinct from *P. Humboldtii*; it differs both above and below.

## 29. P. Rhodoptera, n. sp.

Above like *P. Humboldtii*; primaries below like *P. Com-nena* but secondaries like *P. Humboldtii*: expanse of wings, 2 inches.

Peru (Degand); Bolivia (Bridges). B.M.

A fine species, intermediate between P. Humboldtii and

P. Lucrezia.

The Perisamas above named have remained so long with blank labels in our cabinets, that I have felt constrained at last either to describe or name them; they are, I believe, all good, distinct, and new *species*, although several of them have for some time been regarded by Mr. Hewitson as varieties.

#### GENUS CALLIZONA. Doubleday.

## 30. C. Latifascia, n. sp.

Callizona Aceste, Doubleday (nec Linnaeus vel Cramer), Gen. Diurn. Lepid. pl. 29, fig. 2 (1848).

Colombia (Parzudaki). 2 specimens. B.M.

This has, I suppose, been taken for the female of C. Aceste, the sexes of that species however do not differ.

# 31. C. Tapajona, n. sp.

Differs from C. Aceste above in the more slender and orange oblique postmedian band of primaries, and in the

more regular outline to the black half of these wings; below it chiefly differs in the narrowness of all the black bands: expanse of wings 1 inch, 11 lines.

Tapajos (Batcs). 2 specimens. B.M.

## 32. C. Fulvescens, n. sp.

Allied to the preceding, but larger; the orange or fulvous oblique band of primaries continuous with basal half of wings, the black border beyond it being merely represented by a short geminate disco-cellular litura, and a dentate projection at external angle; secondaries longer; primaries below almost as in *C. Accste*, but the apical yellow bands broader and the central black bar broken; secondaries with all the black bars narrower: expanse of wings, 2 inches, 4 lines.

E. Peru (*Degand*). 1 specimen. B.M. The largest species in the genus.

#### GENUS MYNES. Boisdural.

# 33. Mynes Doryea, n. sp.

Above like *M. Geoffroyi*, excepting that the black outer margin is about double the width; primaries below as in *M. Geoffroyii* excepting that the apical spots are larger; secondaries below as in *M. Guérinii*: expanse of wings, 2 inches, 8 lines.

Dorey (Wallace). B.M.

We have an example, labelled N. Guinea, which only differs from the type in the narrower black border above.

#### GENUS HETEROCHROA. Boisdural.

#### 34. Heterochroa Tumida, n. sp.

Closely allied to *H. Irmina*, but the tawny band of primaries deeper in colour, its front edge like that of *H. Tizona*, its inner edge like that of *H. Mephistopheles* (so that it differs entirely from *H. Irmina* in shape); apex

dark brown, not black; secondaries shorter; below primaries differing in the central band as above; secondaries with central costal silver spot shorter and broader: expanse of wings, 2 inches, 2 lines.

E. Peru (Degand); Bogota (Stevens). B.M.

Intermediate in character between *H. Irmina* and *H. Borcas*,

#### GENUS ARGYNNIS. Fabricius.

## 35. Argynnis Pallescens, n. sp.

 $\zeta$ ,  $\varphi$ . Intermediate between A. Vorax and A. Adippe, size of the latter; differs from A. Vorax above in the more dusky tint of basal half of secondaries; below in the presence of three subapical silver spots (two submarginal and one subcostal), in primaries; a series of small silver spots, partly obscured by green and ochreous scales, just within the central waved discal series of secondaries; the ocelli better defined; and a submarginal series of seven large silver spots encircled by a green zone; expanse of wings, 2 inches, 5 lines.

Hakodadi (Whitely). 4 examples. B.M.

This species was included in my list of Hakodadi butterflies as A. Adippe var.; it, however, is clearly distinct from that species, being considerably paler above, with the black spots smaller; below it is greener than A. Chlorodippe, and the submarginal silver spots are considerably larger; from A. Jainadeca it is distinguished by its more produced primaries, its more dingy colouring on both surfaces, its larger black spots, the size of the submarginal silver spots, and the consequent narrowness of the discal ochreous area; the dark streaks upon the median branches of primaries above are also much better developed in A. Pallescens of than in A. Jainadeca of.

#### 36. Argynnis Inconstans, n. sp.

3. Above similar to the Javanese representative of A. Niobe, but paler, with the marginal spots much larger; below paler, with all the black and silver markings enlarged, and the central band of secondaries widened: expanse of wings, 2 inches, 8 lines.

- § . Above like the male, but with all the black spots enlarged; below similar to the female of A. Niobe, but much paler, the silver spots less distinct, that in the discoidal ochreous patch of secondaries obsolete; the subapical band of primaries pale ochreous instead of white: expanse of wings, 3 inches, 2 lines.
- $\mathcal{J}$ . Moreton Bay (Gibbons);  $\mathfrak{P}$ ,  $\mathcal{J}$ . Australia (Parzudaki). B.M.

One of the most interesting of all the Argynnides, since it offers the best evidence of the truth of protective assimilation; it supplies the place of A. Niobe in Australia, and, unlike that species, the sexes are alike; this fact is no doubt due to the more restricted range in this direction of the model Danais Chrysippus, of which the female D. Niobe is a well known mimic, but which does not occur in Australia.

#### GENUS CETHOSIA. Fabricius.

#### 37. Cethosia Insulata, n. sp.

Allied to *C. Chrysippe*, but more dusky above, the basal area sometimes reddish-brown; the white patch of primaries even larger than in *C. Cydalima* (that is, more than twice as large as in *C. Chrysippe*); secondaries exhibiting an inner discal series of indistinct tawny or occasionally whitey-brown lunate markings; below, white patch of primaries as above; spots arranged as in *C. Chrysippe*, but their zones less blue-tinted: expanse of wings, 3 inches, 5 lines.

Ké Island. (Wallace). B.M.

## SUB-FAMILY HELICONINA. Bates.

GENUS HELICONIUS. Fubricius.

38. Heliconius vetustus, n. sp.

♀. Intermediate between H. Numatus and H. Nocatus; general markings of primaries as in H. Numatus but the distance between the yellow band and the three subapical spots double as wide; three subanal yellow spots; the basal discoidal black streak and the basal half of the internal black streak absent; secondaries black; the costa and a central subcostal spot tawny ochraceous; a narrow band crossing the cell and a spot on abdominal margin, tawny; two subapical yellow spots; the wings below paler and duller than above; primaries with four geminate submarginal white spots towards apex; secondaries with twelve submarginal white spots; two of them subapical, replacing the yellow spots on upper surface: expanse of wines, 3 inches, 9 lines.

Demerara, B.M.

This is the "Mechanitis Numata" of Doubleday's List, it mimics an undescribed Melinaa from Demerara, allied to M. Madus.

#### 39. Heliconius Radiosus, n. sp.

Closely allied to *H. Pardalinus*, differs above in the tint of the wings, the chestnut or dark mahogany of the ground colour being replaced by tawny; the black spots are also smaller and the yellow band of primaries rather different in outline; below paler, the secondaries with a marginal series of eight geninate white spots; otherwise as above: expanse of wings, 3 inches, 4 lines.

Villa Nova (Bates). B.M.

Mimics Melinea Melus, just as H. Pardalinus does M. Pardalis.

## 40. Heliconius Vittatus, n. sp.

Intermediate between *H. Eucoma* and *H. Messene*; primaries above much like *H. Eucoma*, but the yellow band more oblique and narrower; the discoidal black streak broader; the median black spots smaller; the external third of the internal black streak and the black submarginal spot between first and second median branches wanting; only one minute, indistinct, subapical yellow spot; secondaries tawny the costal area brown with pale greyish-brown central streak; a central transverse macular black band; the outer margin and a spot at apex black dotted with yellow; primaries below nearly as above, two indistinct squamose yellow spots placed obliquely on each

side of third subcostal branch; a squamose tawny spot at origin of fourth and fifth branches; a submarginal series of ill-defined whitish spots, becoming larger and diverging from the margin towards costa; secondaries with the costal area tawny with two black streaks, the inner one abbreviated: marginal spots more distinct than above, white; Bogota (Stevens). B.M.
Mimics Melinæa Ishka.

## 41. Heliconius bicoloratus, n. sp.

Intermediate between H. Messene and H. Aristione; differs from H. Messene above in the uniform tawny colour of the broad band in primaries and in the inward extension of the tawny patch at apex of secondaries; below, in addition to the preceding characters, it differs in the tawny colour of the subcostal area of primaries and in the presence of a small tawny subcostal spot towards apex of secondaries: expanse of wings, 3 inches, 8 lines.

E. Peru (Degand). B.M.

Mimics Melinæa Methone 3: I thought at one time that it was the male of H. Aristione (which minnes the supposed female of M. Methone) but H. A ristione is represented by a male example in the Collection of the British Museum.

# 42. Heliconius Metalilis, n. sp.

Wings above tawny, primaries with an elbowed black streak in the cell; a broad curved tapering internal black streak terminating in a more or less well defined hastate spot at external angle; costa to beyond middle black; apical half of wing somewhat as in H. Pardalinus; the yellow spots being similar in shape and position, but the whole of the black markings between the median branches connected together, so that the fourth division of the oblique yellow band is distinctly separated; this band is also tinted with tawny and there are no yellow spots at the external angle; secondaries almost precisely as in H. Vittatus (described above) but the central band is continuous: below paler than above, the primaries with seven apical submarginal white spots; the secondaries with two black subcostal streaks, the inferior one broader and enclosing a pale tawny spot; two white apical spots; twelve marginal white spots or strioles: expanse of wings, 3 inches, 6 lines.

Venezuela (Dyson). 3 specimens. B.M.

Mimics Melinera Lilis, and differs from it just as Heliconius Telchinia does from M. Imitata.

# 34. Heliconius Diffusus, n. sp.

Primaries above as in *H. Sylvanus*; the discoidal black spot obsolescent; secondaries nearly as in *H. Numatus*, but the discal black band narrower and the costal area entirely greyish white; the last two spots of the discal tawny band slightly tinted externally with yellow scales: wings below nearly as in *H. Sylvanus*, but primaries without the subbasal discoidal black spot; secondaries with the black spots of the discal series considerably larger, and beyond them a complete series of almost semicircular tawny spots, the two last (at apex) slightly tinted externally with white: expanse of wings, 3 inches, 3 lines.

Pará (Wallace). B.M.

Mimics Melinæa Paraiga of Reakirt; the nearly allied H. Sylvanus mimics Melinæa Eyena, and the differences between the two Melinæa and Heliconii is about equal.

# 44. Heliconius Mimulinus, n. sp.

Closely allied to *H. Wallacci*, but with the steel blue basal area more restricted; the yellow spot in cell of primaries enlarged, subquadrate, connecting the large intermedian patch with the costa, thus forming a band as in *H. Sara*; the costal, subcostal, and median nervures dusted with yellow scales from transverse band to base; subapical streak narrower: wings below olive brown; yellow markings as above; primaries with base of costa red; secondaries with eight differently shaped red spots at base, as in *H. Wallacci*; apical area irrorated with whitish scales; basal lobe spotted with yellow: expanse of wings, 3 inches, 1 line.

Bogota (Stevens). B.M.

In the general character of the pattern of the upper surface this species resembles H. Sura of Fabricius,

# 45. Heliconius Rufolimbatus, n. sp.

Allied to *H. Tyche*, but primaries with a large pale ochreous patch across the end of the cell, shaped almost exactly like the yellow patch of *H. Timarcha* or *H. Melete*, but with a regular external red border of equal width; a subanal diffused lunate spot as in *H. Timarcha*; secondaries as in *H. Tyche*: wings below paler than above; the internal area of primaries whitish; the basal half of costa of secondaries yellow: expanse of wings, 3 inches, 6 lines.

Tapajos (Bates). B.M.

#### GENUS EUEIDES.

## 46. Eucides Unifasciatus, n. sp.

Closely allied to *E. Mercani*, but without the subapical tawny band of primaries; the central band being also broader and more or less inclining to yellowish on upper surface: expanse of wings, 2 inches, 11 lines.

Ega (Bates). B.M.

Probably the Upper Amazons representative of E. Mercani.

# 47. Eucides Hippolinus.

Wings above tawny; apical third of primaries, a subcuneiform dash in discoidal cell, a large spot between the first and second median branches and an internal streak, black; secondaries with the margin, a subcostal streak and six spots beyond the cell, black; an indistinct series of submarginal white points; primaries below with a small yellow subcostal spot beyond end of cell, four apical submarginal white spots; secondaries with fourteen submarginal white spots; body dark brown, streaked and spotted with ochreous: antenne ochreous, black at the base: expanse of wings, 2 inches, 10 lines.

E. Peru (Whitely). B.M.

Somewhat resembles *Heliconius Hippola* and probably mimics some Melinea allied to *M. Ishka*.

#### SHB-FAMILY ACRIEINE. Bates.

GENUS ACTINOTE. Hübner.

49. Actinote Griscata, n. sp.

Allied to A. Amida, but the red basal area of primaries extending to middle of wing, exhibiting a black obliquely transverse discoidal striole, as in A. Antens; the red discal band arched forwards, its outer edge undulated, its external third yellow-tinted; secondaries grey with the nervures dusky; outer margin broadly dull brown: thorax black; abdomen grey; primaries below paler than above; subapical area irrorated with ochreous scales; the nervures black; secondaries greyish white; the nervures black; internervular folds and outer margin brown: expanse of wings, 2 inches, 4 lines.

Pucartambo, Peru (Whitely.) B.M.

A fine distinct species.

# FAMILY ERYCINIDÆ. Swainson.

#### SUB-FAMILY ERYCININA. Bates.

GENUS BARBICORNIS. Latreille.

49. Barbicornis Dibaphina, n sp.

Wings above black, the primaries very similar to *B. Basilis*, but the inner orange patch terminating externally upon first median branch; secondaries with the nervures grey: wings below paler, the nervures of secondaries whitish: expanse of wings, 1 inch, 8 lines.

"Brazil" from Gardener and Stevens. B.M.

It is a pity that we have no precise habitats for the species of *Barbicoruis*; the present species is evidently distinct from *B. Basilis*, from which it differs in its more slender and scarcely barbed antenna, (in addition to the character of the coloration); its habitat is therefore sure to be different.

## 50. Barbicornis Melanops, n. sp.

Wings above black, the primaries with a single orange subapical band, as in *B. Busilis*; secondaries with the nervures grey; below paler, the nervures more or less whitish: expanse of wings, 1 inch, 8 lines.

" Brazil " (Stevens). B.M.

Nearly allied to the preceding, but easily distinguished by the absence of the second orange streak; the antennae are similar.

#### GENUS ZELOTÆA, Batcs.

#### 51. Zelotwa Eidothea (Doubleday MS.)

Wings above white, the nervures greyish-ochreous; primaries with a broad regularly curved pale pearly-grey outer border, broadest upon costa and narrowest at second median interspace: body creamy white, head and pterygodes ochreous; antennae dull black; primaries below white; the costa, outer margin and nervures pale brown; the internal edge of the outer border sinuated, the sinuses clouded with lilacine; secondaries pale ochreous or sordid white, the outer margin and nervures pale brown; expanse of wings, 1 inch, 8 lines.

Rio Janeiro (Stevens). B.M.

Most nearly allied to Z. Dubia of Bates.

## FAMILY PAPILIONIDÆ. Leach.

SUB-FAMILY PIERINÆ (Swainson), Bates.

GENUS MEGONOSTOMA. Reakirt.

## 52. Megonostoma Cynops, n. sp.

3. Wings above saffron-yellow, costa of primaries to second-third of discoidal cell and base greenish-grey; outer margin broadly and irregularly bordered with black, as in M. Philippa, and irrorated with lake-red; fringe

alternately plum-coloured and yellow: secondaries as in *M. Cesonia*, excepting that the black border is rather broader and the orange disco-cellular spots paler and smaller; primaries below saffron-yellow, becoming golden-yellow towards apex; disco-cellular spot black and large as in *M. Cesonia*, otherwise as in *M. Philippa*: secondaries clear golden-yellow; general arrangement of markings as in *M. Philippa*: secondaries clear golden-yellow; general arrangement of markings as in *M. Philippa* but the silver spots larger and rounder: expanse of wings, 2 inches, 10 lines.

Q. Dull saffron-yellow, somewhat inclining to ochreous; basal two-fifths of costa and base irrorated with brown; disco-cellular spot dark-brown, large; apical costa and outer margins broadly dusted with brown, the brown border being simuated internally; an irregular discal series of six diffused brown spots; the upper two confounded with the apical border, the third elongated; the fourth and fifth lunate, the sixth oval; secondaries with costa white; discocellular spots ochreous; nervures terminating, upon apical half of outer margin, in diffused brown spots: wings below much paler than in the male, otherwise similar: expanse of wings, 1 inch, 11 lines.

Haiti (Tweedie). 3 specimens. B.M.

To some extent intermediate between *M. Cesonia* and *M. Philippa*, but differing from both in the obtuse apex of the primaries: the female is somewhat similar in appearance to that sex of *M. Philippa*, but (in addition to the form of its wings) the markings are all more sharply defined, the secondaries paler in colour and with marginal brown dots.

#### GENUS TERACOLUS. Swainson.

## 53. Teracolus Cincrescens, n. sp.

Anthocharis Danaë, Trimen (nec. Fabr.) Rhop. Afr. Austr. 1., p. 44, n. 27 (1862); Gen. Dium. Lep. pl. 7, fig. 3 (1847).

This species has long been confounded with the Indian species, it is however entirely distinct, being quite unlike it in both sexes; we have it from Port Natal and Caffraria in the British Museum.

#### GENUS SYNCHLOË. Hübner.

#### 54. Synehloë Megamera, n. sp.

3. Wings above white; the base blackish-grey: apical region of costa broadly grey; the outer half of the nervures towards apex blackened; body as in S. Napi; below very similar to S. Napi, but the nervures much more distinct, median nervure of primaries and its branches bordered with black; the remainder of the nervures with greyish olivaceous; the two diffused black spots on disc of primaries more distinct than in S. Napi; secondaries bright golden-yellow at base: expanse of wings, 2 inches, 7 lines.

Q. Wings above white, the nervures margined with grey; basal half of costa in primaries pale ochraceous; apical area grey; an ill-defined large brown spot between second and third median branches and a second, crossing intermedian interspace; the internal area from the latter spot to the base brown; secondaries with a large brown spot between subcostal branches towards apex; wings below less strongly marked than above; primaries with apical area pale ochreous; nervures and discal spots more feelby defined; secondaries pale ochreous, the nervures greyish olivaceous, no spots: base golden-yellow: expanse of wings, 2 inches, 6 lines.

Hakodadi (Whitely). B.M.

I formerly supposed this to be a variety of *S. Nepi* and gave a rough representation of it as such, in a popular paper published in the first volume of "Nature and Art:" it is however certainly distinct, being quite as nearly allied to *S. Melete* as to *S. Napi*.

#### GENUS LEPTOSIA. Hübner.

#### Leptosia Sinensis, n. sp.

Allied to *L. Sinapis*, wings longer; fringe tinted with red-brown: primaries more dusky at base, costal margin and apex red-brown; a large subapical oval black spot; wings below white; fringe as above; primaries with apical half of costa and apex ochreous: discoidal cell, area immediately beyond it and a large subapical patch greyish

green; a white spot on upper disco-cellular: expanse of wings, 1 inch, 10 lines.

Shanghai (W. B. Pryer.) B.M.

#### GENUS EUTERPE, Syrainson,

#### 56. Euterpe Rosacea, n. sp.

Allied to *E. Terias*, primaries very similar, but broader, the three white spots well separated, smaller; secondaries black, with two deep rosy oval spots, the inner one bifid, on inner half of wings; wings below brown; primaries with central patch as in *E. Terias*; four submarginal yellow dots; secondaries with two crimson spots at base; an oval subcostal yellow spot near base; three or four rosy spots crossing inner half of wings; a large spot on abdoninal margin and seven conspicuous submarginal spots sulphur-yellow: expanse of wings, 2 inches, 5 lines.

Quito (Bourcier). 2 specimens. B.M.

#### 57. Euterpe Approximata, n. sp.

Nearly allied to *E. Critias*, the primaries narrower; the rosy patch of secondaries considerably nearer to the outer margin, broader, more uniform in colour, and interrupted by three nervures; the yellow spots below much smaller: expanse of wings, 2 inches, 6 lines.

Polochic Valley (Salcin). B.M.

#### 58. Euterpe Nigripennis, n. sp.

Nearly allied to *E. Critias*, but the primaries entirely black; rosy patch of secondaries smaller; expanse of wings, 32 inches, 6 lines; 22 inches, 10 lines.

Bogota (Stevens).

#### GENUS SPHÆNOGONA. Butler.

#### 59. Sphanogona Graduata, n. sp.

Primaries above saffron-yellow; the base irrorated with

black; outer margin rather broadly and irregularly black, much as in *S. Constantia*, but with the irregularities less pronounced; secondaries with abdominal half white, apical half saffron-yellow, shading into golden-yellow at apex; outer margin with a well-marked black border; under side similar to *S. Theodes*: expanse of wings, 1 inch, 7 lines.

Parà (Wallace.) B.M. Colours of S. Gratiosa above.

#### 60. Sphænogona Ectriva (Doubleday MS.)

Above very similar to S. Salome, but the wings longer; primaries with broader dark brown border to outer margin; its irregularities less pronounced; caudal projection of secondaries less prominent; underside similar to S. Constantia: expanse of wings, 2 inches.

Archidona (Sterens). B.M.

#### GENUS ELODINA. IVallace.

#### 61 Elodina Quadrata, n. sp.

Very like a large example of *E. Padusa*, but with all the wings much more elongated, the coste being especially lengthened; primaries above with the apical patch more quadrate, less sinuated internally, the outer border continued to external angle; the discoidal cell tinted with sulphur-yellow; secondaries with a diffused narrow brown edge to outer margin; primaries below very similar to *E. Angulipennis*, but all the margins straight and the entire discoidal cell sulphur-tinted; apex pearly; secondaries white, the nervures and fringe ochreous, costa goldenyellow; a minute disco-cellular black point: expanse of wings, 2 inches.

Between Sidney and Moreton Bay. B.M.

#### GENUS NYCHITONA. Butler.

#### 62. Nychitona Nupta, n. sp.

Wings above satiny-white; primaries with the apical edge slightly dusky; below as in N. Alcesta, but without

the blackish spot in primaries: expanse of wings, 1 inch, 7 lines.

Angola, Bembe Mines (Monteiro). B.M.

This species has long stood in our Collection without a name; it is perhaps most nearly allied to *N. Medusa* of Cramer.

#### FAMILY HESPERIDÆ. Leach.

GENUS PYRRHOPYGA. Hübner.

#### 63. Pyrrhopyga Fluminis, n. sp.

Papilio Bixee, Cramer, (nec Linneus), Pap. Exot. III., pl. 199, figs. C, D (1780).

Santarem (Bates); Archidona. B.M.

Differs from P. Phidias in having the white band of under surface carried through primaries to costa.

### 64. Pyrrhopyga Latifasciata, n. sp.

Nearly allied to *P. Phidias*, but with the white fringes rather longer, and the white band on under surface of secondaries of double the width and angulated externally in the middle: expanse of wings, 2 inches, 3 lines.

Bogota (Stevens). B.M.

#### GENUS CARYSTUS. Hübner.

#### 65. Carystus Fulvimargo, n. sp.

3. Wings above chocolate brown; basal third shot with metallic blue-green; primaries with two hyaline spots placed obliquely towards end of cell, and a spot upon each of the median interspaces, hyaline white, but bronzy-green when viewed obliquely; fringe very narrowly golden yellow; the usual pale brown male streak; secondaries with golden-yellow fringe, increasing in length to anal angle where it is unusually long: body above chocolate-brown, shot with metallic blue-green; anus ochraceous: wings below very similar to *C. Coridon* but the brown markings paler, the light markings more lilacine, the hyaline spots smaller, the fringe and a conspicuous patch at anal angle of secondaries golden-yellow; body below dull brown, the legs, abdomen, and club of antenme fulvous; the palpi grey: expanse of wings, 2 inches, 6 lines

Venezuela (Dyson.) B.M.

A very handsome species reminding one of the Javanese C. Huda.

Description of a new Species of Daphnusa (Sphingidæ) from Queensland: by the Rev. R. P. Murray.

#### Daphnusa Miskini, n. sp.

Allied to *D. Orbifera*, Walker, Proc. Linn. Soc. vi. 85. from Borneo, but without the light-coloured mark near anal angle of fore-wing, which distinguishes that species. Fore-wing soft grey, crossed by an indistinct darker band in the middle, which band is resolved at a short distance below the costa into four ill-defined lines (2. 2.) hardly visible on the inner margin. Base of costa brown, followed by an indistinct transverse brown line. Beyond the central band the wing is crossed by an indistinct hundlated brown line, followed by a row of short longitudinal brown streaks, one on each nervure. There are also some ill-defined apical brown markings, and a small yellow spot at the extremity of the cell.

Hind-wing dark brown, lighter at tip and on inner margin. Fringe of fore-wing dark brown, cut with lighter near anal angle: of hind-wing whitish. Under side of both wings reddish-brown, crossed by darker narrow bands, hardly visible on fore-wing, but more distinct on hind-wing. An oblong dark brown patch at tip of fore-wing extends half way along the outer margin, and may even be traced indistinctly as far as the anal angle. This patch is preceded on the costa by a whitish-grey blotch.

Head, thorax, and body grey. A narrow brown band reaches from the head to the hinder extremity of the thorax, where it widens into a triangular form. The abdomen is crossed near the base by two brown bands, interrupted in

the middle.

Hab. Queensland.

I have named this species in honour of W. H. Miskin, Esq., of Brisbane, to whom I am indebted for the specimen described. Descriptions of two new Species of Australian Cetoniidæ by Oliver E. Janson.

### Diaphonia Mniszcchii, n. sp.

Nigra, nitida; capite rugoso, clypeo valde emarginato; thorace fulvo, maculis mediis duabus nigro-piceis; scutello fulvo, acuminato, punctato; elytris fulvis, punctatis, apice acuminatis; pygidio magno, incrassato, dense cinereo-villoso; subtus cinereo-pilosa. Long. 16 lin., lat. 8 lin.

Black, thorax, scutellum and elytra fulvous, the former with the posterior margin narrowly edged with black, and two large irregularly shaped spots on the disc pitchy black, the base of the scutellum and suture of the elytra also black.

Head thickly covered with confluent punctures, clypeus deeply emarginate in front, rounded at the sides.

Thorax coarsely and somewhat thickly punctured with the median line smooth, posterior margin slightly bisinuate, the central lobe emarginate.

Scatellum punctured at the base, apex smooth and depressed.

Elytra with the suture depressed, humeral callus large, each with the apical sutural angle produced into a short acute spine, coarsely and shallowly punctured, the punctures disposed in two distinct strike on the disc, confluent at the sides and apex.

Pygidium, underside and femora thickly clothed with long cinereous pubescence, the former large and swollen; abdomen very concave; apex of mesosternum broad and rounded; anterior tibiae unarmed, intermediate and posterior slightly curved, the latter with a long ferruginous fringe of hairs on the inner basal half; tarsi very long,

furnished on the underside with numerous spines or bristles.

Esperance Bay. Coll. Parry.

This insect bears a general resemblance to *D. nigriceps*, Blanch., but its larger size, finer punctuation, the depressed suture of its elytra, its fringed posterior tibiae, its large swollen and thickly pubescent pygidium, and the dense long ashy pubescence of its under side and femora, independent of other differences, suffice to distinguish it.

The only specimen I have seen of this fine insect has been kindly lent to me for description by Major Parry, to whom it was presented by Count de Mniszech, in whose magnificent Collection is another example, both are from the Collection of Count Castelnau and are males.

#### Eupacila inscripta, n. sp.

Flavo-viridis, fere lavigata, nitida; clypeo profunde exciso; thorace postice nigro marginato, dorso macula magna, litere W inversa formi, nigra notato; elytris puncto trifido humerali, sutura margineque externa, fascia angusta interrupta media, alteraque lata sinuata postica nigris; pygidio transversim aciculato, plaga media nigra notato. Long 10 lin.

Yellowish-green, nearly smooth, shining, head and thorax with a reddish tint.

Head with a few scattered shallow punctures at the base; elypeus closely punctured, sides rounded, apex produced and deeply excised, with two minute spots and a semicircular mark between the eyes black; apex of clypeus, antennae and palpi reddish-brown.

Thorax with disc smooth, the sides sparsely and obsoletely punctate, anterior margin bisimuate, anterior angles acute, posterior margin strongly trisinuate, the disc with four oblique black lines uniting so as to form a reversed W.

Scutellum impunctate.

Elytra smooth, but somewhat thickly strewn with minute

reddish-brown spots, resembling punctures, arranged in several distinct rows on the disc but irregularly disposed near the suture and at the sides, suture, outer margin, a trilobed humeral spot, a dash contiguous to the scutellum, two small spots placed in a straight line near it, a transverse slightly sinuate row of spots a little behind the middle, and a broad deeply sinuate sub-apical fascia reaching neither the suture nor the lateral margin black.

 $\ensuremath{\textit{Pygidium}}$  transversely accoulate, with an oblong central black patch.

Beneath smooth with the apical margins of the abdominal segments and the thoracic sutures pitchy black. Mesosternal process long, narrow and deflexed at the apex.

Legs pitchy red, apex of femora and tibiæ and base of tarsal articulations pitchy black.

Western Australia, (Nicol Bay). Coll. Janson.

This well marked species is most nearly allied to E. Australasia.



Monographic List of the Homopterous Insects of the Genus Plutypleura: by Arthur Gardiner Butler, F.L.S., F.Z.S., &c.

In the present paper I have examined, as far as possible into the value of all the species; the result has been that, on most points, I arrive at the same conclusions with Dr. Stal, although in some respects I disagree with him: I cannot help noticing that, in this genus as well as in others, his animus against Mr. Walker's work appears to have warped his judgment; there is no advantage, for instance, in quoting synonymic names for species, and, at the same time, sinking the original name into the synonymy; each time this is done it only adds to the confusion, which our successors will have to set to rights, unless indeed we do it ourselves. The assertion that Mr. Walker's descriptions are insufficient is no excuse for rejecting his names when you know the species intended by him; sufficiency in a description is a matter of opinion, scientific accuracy as regards priority is an acknowledged law

#### °STRIDULANTIA.

GENUS PLATYPLEURA. · Amyot and Servil! ·.

Species with Yellow or Tawny Wings.

♦ 1. Platypleura Guttulata.

Platypleura Guttulata, Signoret, Ann. Ent. Soc., Sér. 3, viii., p. 178; 4, pl. 4, fig. 1 (1860).

Madagascar (from Mr. Saunders' Collection). B.M.

This is a very variable species, neither of our examples agree exactly with the figure in the spotting of the hemelytra.

### 02. Platypleura Divisa.

<sup>O</sup>Cicada Divisa, Germar, Silbermann's Revue Entom., t. 2, pt. 1, p. 80, n. 56; pt. 2, pl. 23 (1834).

Var. 9. Platypleura Chloronota, Walker, List. Homopt.

Ins., 1, p. 8, n. 13 (1850).

"Cape of Good Hope"-Germar. S. Africa; Port

Natal (Gucinzius). Walker's type. B.M.

The  $^{\vee}P$ . Chloronota of Walker is of a greener tint, and the dark markings are less defined than in the typical form.

### © 3. Plutypleura Catocaloides.

Platypleura Catocaloides, Walker, Journ. Linn. Soc. Zool., vol. x., p. 82, n. 1 (1867). Amboina (Wallace). Type. B.M.

### 4. Platypleura Arcuata.

'Platypleura Arcuata, Walker, Insecta Saundersiana, Homopt. p. 1 (1858).

Ceram (Wallace). Type. B.M.

Only differs from P. Catocaloides in its deeper coloration, it is probably a local form of that species; Stal has placed it as a synonym of P. Ciliaris; but, as he saw the hemelytra only, this was to some extent excusable; I have opened them to shew the wings.\*

## 5. Platypleura Varia.

Cicada Varia, Olivier, Enc. Méth. v., p. 756, n. 44; pl. 113, fig. 6; Stoll Cie. p. 102; pl. xxvi., fig. 147 (1788). Platypleura Varia, Walker, List Homopt. Ins. 1, p, 8, n. 12 (1850).

Cape of Good Hope (*Drege*). B.M. Stoll's figure is far more like *P. Catocalina* of Walker; this species seems distinct from *P. Ciliaris*, so far as I can see; although placed with it by Stal.

<sup>\*</sup> Stal says, "Exempla typica Linnai, De Geerii et Walkerii examinavi;" vidi would be more correct.

## <sup>0</sup>6. Platypleura Hilpa.

√ Platypleura Hilpa, Walker, List Homopt. Ins. 1, p. 6.
n. 10 (1850).

o Platypleura Fenestrata, Uhler, Proc. Acad. Nat. Sci. Philad., p. 282 (1861).

China, Hong-Kong (Bowring). Type. B.M.

Excepting in the slightly more transverse thorax, almost precisely like *P. Varia*; I doubt its being a distinct species: Uhler's species is doubtless *P. Hilpa*.

### <sup>♥</sup>7. Platypleura Ciliaris.

Cicada Ciliaris, Linnaeus, Syst. Nat. 1, 2, p. 706, n. 8 (1766).

Cicada Ocellata, De Geer, Ins. iii., p. 220; pl. 33,

figs. 2, 3 (1773).

\*\*Tettigonia Marmorata, Fabricius, Syst. Rhyng, p. 38,

n. 24 (1803).

OCicàda Plumosa, Germar, Silbermann's Revue Entom.,
t. 2, pt. 1, p. 81, n. 58; pl. 26 (1834).
Interior of S. Africa; Zulu Country (Sir A. Smith). B.M.

The figure in Rumph's Herbarium Amboinense (iii., p. 210, pl. 135, fig. p. 1750), is probably intended for Dundubia Bicaudata or an allied species; it certainly has nothing in common with Platypleura Ocellata.

### 08. Platypleura Wahlbergii.

\*\*Platypleura Wahlbergii, Stal, Öfversigt Kongl. Vetensk. Akad. Förhandl., p. 89 (1855. edit. 1856).

"Caffraria" Stal; Port Natal (Gueinzius). B.M.

### 09. Platypleura Fulvigera.

<sup>∨</sup>Platypleura Fulvigera, Walker, List Homopt. Ins. 1, p. 9, n. 14 (1850).

Philippine Islands (Bowring). Type. B.M.

### 010. Platypleura Stridula.

Cicada Stridula, Linnaus, Syst. Nat. 1, 2, p. 706, n. 12 (1766); Olivier. Enc. Méth. v., p. 751, n. 22; pl. 112, fig. 2.

O Tettigonia Stridula, Fabricius, Syst. Ent. p. 679, n. 8 (1775).

CPlatypleura Stridula, Amyot & Serville, Hist. Nat. Ins.

Hémipt. p. 466, n. 1 (1843).

— Scarabarus Volans, Seba, Thes. ii., p. 23; pl. 2, fig. 5 (1735).

Cicada Catenata, Drury, Ill. Ins. ii., pl. 27, fig. 2 (1773). Cicada Nigrolinea, De Geer, Ins. iii., p. 219, n. 15;

pl. 33, fig. 1 (1778-83).

Cape of Good Hope (Townsend, Children, Dreyr); Zulu Country (Sir A. Smith); Knysna (Trimen). B.M.

#### 11. Platypleura Phulanoides.

Platypleura Phalanoides, Walker, List Homopt. Ins. 1, p. 4, n. 9 (1850).

Platypleura Interna, Walker, l. c., iv., Suppl. p. 1119, n. 30 (1852).

Silhet (Stainsforth); Assam (Warwick); N. Bengal

(Campbell). Types. B.M.

The *P. Interna* of Walker only differs from *P. Phala-noides* in having the anal angle only (instead of the entire flap) of the wings, black; Mr. Walker certainly included both forms under his list of specimens of *P. Phalænoides*; Dr. Stal however says, "a qua *P. Interna*, Walk., haud distingui potest."

#### §12. Platypleura Congrex.

Platypleura Congrex, Stal, MS.?

—? Specimen with type-label. B.M.

Possibly a variety of P. Phulanoides, but in some of its markings more like P. Ciliaris, in the plain yellow flap of the wings like P. Divisa.

## <sup>C</sup>13. Platypleura Westwoodii.

Very Platypleura Westroodii, Stal, Trans. Ent. Soc., London, 3rd Ser., 1, p. 571 (1863).

"Ceylon" Stal. Hope Museum.

Allied to *P. Phalænoides*; we have a species possibly referable to this in the British Museum.

### 014. Platypleura Signifera.

Platypleura Signifera, Walker, List Homopt. Ins. 1, p. 7, n. 11 (1850).

Zulu Country (Sir A. Smith). Type. B.M.

#### ○15. Platypleura Deusta.

Tettigonia Deusta, Thunberg, Hem. rostr. cap. 1, p. 6

(1822).

Ocicada Decora, Germar, Silbermann's Revue Entom. 2, pt. 2, p. 79, n. 55 (1834); Stoll, Cic. pl. vii., fig. 37 (1788). Ol'latypicara Decora, Walker, List Homopt. Ins. 1, p. 4, n. 8 (1850).

Cape? (Shuckard). B.M.

The figure in Stoll is not very characteristic of the species.

### <sup>6</sup>16. Platypleura Hirtipennis.

*Cicada Hirtipennis*, Germar, Silbermann's Revue Entom., t. 2, pt. 1, p. 80, n. 57: pt. 2, pl. 25 (1834).

"Cape of Good Hope." Germar.

Probably a variety of P. Capensis, and not the P. Chloronota \* of Walker, the latter being a slight variety of P. Dicisa, Germ.; P. Plumosa of Germar appears to be identical with P. Occlluta.

### 017. Platypleura Capensis.

*Circala Capensis*, Linnaeus, Syst. Nat. 1, 2, p. 706, n. 13 (1766); Sulzer, Gesch. Ins., pl. 9, fig. 8 (1776).

*Platypleura Capensis*, Amyot & Serville, Hist. Nat. Ins.

Hémipt., p. 466, n. 2 (1843).

Cape of Good Hope (Gueinzius); Zulu Country (Sir A. Smith); S. Africa (Argent); Knysna (Trimen); Port Natal (Krauss). B.M.

### ○18. Platypleura Haglundi.

\*Platypleura Hagluadi, Stal, Hemipt. Afric. 4, p. 14, n. 6 (1866).

" Caffraria." Stal.

Allied to P. Hirtipennis.

<sup>\*</sup> A label on this species referred it to P. Hirtipannis.

### <sup>△</sup>19. Platypleura Basi-viridis.

Platypleura Basi-viridis, Walker, List Homopt. Ins. 1, p. 18, n. 24 (1850).

—? Walker's type. B.M.

## ` ≥20. Platypleura Sphinx.

✓ Platypleura Sphine, Walker, List Homopt. Ins. 1, p. 13,
 n. 18 (1850).
 N. Bengal (Campbell); N. India (Warwick) Type. B.M.

#### ©21. Platypleura Basimacula.

\*Platypleura Basimacula, Walker, List Homopt. Ins. p. 10, n. 15 (1850).

5 var. Platypleura Reducta, Walker, l. c. p. 11, n. 16 (1850). Congo (Richardson); Zulu Country (Sir A. Smith) Types. B.M.

### 22. Platypleura Albigera.

VPlatypleura Albigera, Walker, List Homopt. Ins. 1, p. 13, n. 17 (1850).
Cape of Good Hope (Shvekard). Type. B.M.

### ©23. Platypleuru Cælebs.

Platypleura Calebs, Stal, Trans. Ent. Soc., London, 3rd Ser., 1, p. 57 (1863).
E. India (three specimens). Type. B.M.

#### Species with Green Wings.

### <sup>©</sup> 24. Platypleura Punctigera.

Platypleura Punetigera, Walker, List Homopt. Ins. 1, p. 14. n. 19 (1850).

OVar. Platypleura Subfolia, Walker, l. c., p. 15, n. 20 (1850).

Port Natal (Gueinzius). Type. B.M.

#### o 25. Platyplcura Semiclara.

©Cicada Semiclara, Germar, Silbermann's Revue Entom., t. 2, pt. 1, p. 82, n. 59 (1834).

*Àlatypleura Basifolia*, Walker, List Homopt. Ins. 1, p. 15, n. 21 (1850).

Zulu Country (Sir A. Smith); S. Africa; Port Natal

(Sanderson).

Walker's type. B.M.

#### Species with Black and White Wings.

### <sup>©</sup> 26. Platypleura Laticlavia.

Platypleura Latielavia, Stal, Öfv. Vet. Akad. Förhandl., p. 320, n. 36 (1858); Hemipt. Afric. 4, p. 20, n. 14 (1866). Platypleura Penicillata, Walker, List Homopt. Ins. Suppl. p. 2 (1858).

Lake N'Gami (Andersen). Walker's type. B.M.

### 027. Platypleura Kæmpferi.

\*\*Tettigomia Kæmpferi, Fabricius, Ent. Syst. iv., p. 23, n. 25 (1794); Syst. Rhyng. p. 41, n. 40 (1803).

Hiogo, Japan (*Lewis*); Japan (*Bligh*); Shanghai (*Fortune*). B.M.

### <sup>©</sup>28. Platypleura Pracellens.

√g. Platypleura Pracellens, Stal, Trans. Ent. Soc., London, 3rd Ser., 1, p. 572 (1863). "Siegra Leone." Stal. Hope Museum.

Like P. Kæmpferi..

## <sup>O</sup>29. Platypleura Fuscangulis, n. sp.

Head castaneous, with an irregular transverse black line passing between the occili; vertex dull castaneous; face piceous, covered laterally with ochraceous pubescence; rugæ luteous; rostrum ochreous, becoming piceous towards tip; antennæ piceous: prothorax dull castaneous, becoming

olivaceous posteriorly: a central longitudinal hastate marking, dilated into a triangle at its hinder extremity, a short oblique dash, and three lines between it and the posterior lobe on either side, all black; posterior lobe subquadrangulate, blackish in front; mesothorax bright castaneous pubescent in front, with four subtriangular spots, the two external ones twice as long as the others; a central longitudinal subtriangular spot with its apex towards the head and clothed at its base with silvery pubescence; an impressed spot on each side; all these spots black: metathorax ochraceous, metathoracic cross unusually wide and compressed: tergum black, sparsely clothed with whitish pubescence at the sides; the segments (excepting the first) margined with ochraceous and fringed with whitish pubescence; drum-covers ochraceous; venter and drums black, margins of segments and of drums dull ochraceous: pectus ochraceous pubescent; legs luteous, the tarsi piceous.

Tegmina above chiefly dull brown to beyond the middle, and thence hyaline, brown-spotted to apex; nervures reddish castaneous: primitive arcolet black, irrorated with whitish pubescence; front areolet enclosing two small rounded whitey-brown spots broadly margined with black, a third similar spot at base of fourth discoidal areolet and a fourth, oval, crossing the centre of the fifth discoidal areolet; a broad dusky brown oblique band, bounded by the pale spots, crosses the termina at middle of front areolet, and a second, externally dentate sinuate, curved band runs from end of front arcolet to external angle, and is only separated from the first by several dusky whitish rounded spots (intersected by the longitudinal veins) and by a subcuneiform spot at external angle; a macular brown band runs from costal margin to end of third transverse vein; there are five geminate marginal spots at terminations of the longitudinal veins, and a short irregular sub-apical band connecting the three uppermost marginal spots; wings blue-black; the nerveless border hyaline white; the flap entirely brown; hemelytra below with all the brown parts darker and the dusky bands black, otherwise as above; length of body 1 inch, 7 lines; expanse 2 inches, 7 lines.

Saráwak (Wallace). B.M.

Nearly allied to P. Kampferi of Fabricius, but differing

in the more angulate character of the posterior lobe of the prothorax, the pattern of the tegmina and the dark brown anal angle to the wings: the metathoracic cross is also considerably wider and more compressed and the entire colouring of the head and thorax more or less different.

### 030. Platupleura Nobilis.

Cicada Nobilis, Germar, Thon., Arch., ii., 2, n. 9; Silbermann's Revue Entom. 2, pt. 2, p. 82, n. 60 (1834.)

OCicada Hemiptera, Guérin, Voy. Belanger, Ind. Orient., p. 500.

OPlatypleura Semilucida, Walker, List Homopt. Ins. 1.,

p. 20, n. 27 (1850). Java. Walker's type. B.M.

### ○31. Platuoleura Gemina.

Platypleura Gemina, Walker, List Homopt. Ins. 1, p. 21, n. 28 (1850).

Cape of Good Hope. Type. B.M.

### 2 32. Platimleura Basialba.

<sup>6</sup>Oxupleura Basialba, Walker, List Homopt. Ins. 1, p. 26, n. 8 (1850).

N. Bengal (Campbell). Type. B.M.

#### © 33. Platupleura Strumosa.

CTettigonia Strumosa, Fabricius, Syst. Rhyng, p. 34, n. 7 (1830).

Ooxypleura Contracta, Walker, List Homopt. Ins. 1, p. 31, n. 13 (1850).

Platypleura Afzelii, Stal, Öfversigt, Kongl. Vetensk. Akad. Förhandl., p. 241 (1854, edit. 1855).

Sierra Leone. Walker's type. B.M. Closely allied to *P. Basialba*.

#### 34. Platypleura Hyaloptera.

Platypleura Hyaloptera, Stal, Hemipt. Afric. 4, p. 20, n. 13 (1866).

Senegal.

Allied to P. Strumosa.

#### Species with Black, White, and Red Wings.

### 35. Platypleura Octoguttata.

Tettigonia Octotoguttata, Fabricius, Syst. Rhyng., p. 39, n. 33 (1803).

Oxypleura Sanguiflua, Walker, List Homopt. Ins. 1, p. 24, n. 6 (1850). Ins. Saund. Homopt., p. 2 (1858).

Punjaub, Wuzeerabad (*Hearsay*); N. Bengal (*Campbell*); N. India; S. India; Combatoor (*Walhouse*). B.M.

### 36. Platypleura Subrufa.

Oxypleura Subrufa, Walker, List Homopt. Ins. 1, p. 25, n. 7 (1850).
India. Type. B.M.

### 37. Platypleura Capitata.

Cicada Capitata, Olivier, Enc. Méth. v. p. 754, n. 34; pl. 112, fig. 10; Stoll, Cic., p. 76; pl. 19, fig. 103 (1788). Ceylon. Stoll.

#### 38. Platypleura Limbata.

Tettigonia Limbata, Fabricius, Syst. Ent. p. 678, n. 3 (1775); Spec. Ins. ii., p. 319, n. 3 (1781); Mant. Ins. ii., p. 265, n. 4 (1787); Ent. Syst. iv., p. 17, n. 4 (1794); Syst. Rhyng., p. 34, n. 5 (1803).

Uicada Armata, Olivier, Enc. Méth. v., p. 748, n. 7 (1790).

Cicada Africana, Palisot de Beauvois, Ins., p. 132; Hém. pl. 20, fig. 3 (1805).

Cicada Grandicollis, Germar, Thon. Arch. ii., 2, p. 1, 2 (1830).

Angola, Bembe Mines (Montciro). B.M.

The type of *Platypleura Limbata* is in the Banksian Collection, and differs from the descriptions of Fabricius and Palisot de Beauvois in having the wings mahoganyred, becoming blackish externally between the nervures; neither the type nor either of our examples has the hemelytra marked with a pale vitreous spot near the costa towards the base, as stated by Stal; but a distinct though allied species from Sierra Leone exhibits this character, I therefore suspect the latter to be the *P. Limbata* of Stal's "Hemiptera Africana."

#### 39. Platypleura Stalina, n. sp.

? Platypleura Limbata, Stal, Hemipt. Afric. 4, p. 18,

n. 10 (1866).

Head dull castaneous, region of the ocelli piceous; vertex dull castaneous, becoming testaceous behind; face dull castaneous, covered laterally with whitish pubescence, rugæ sparsely clothed with pubescence; rostrum ochraceous at base, piceous towards tip; basal joint of antennæ castaneous, other joints—?: prothorax testaceous, luteous in front, with the impressed markings blackish; mesothorax dark castaneous, becoming luteous and clothed with testaceous pubescence at the sides, with a lateral oblique black streak: metathorax dark castaneous, metathoracic cross bright castaneous; tergum and drum coverspitchy, terminal segments whitish: venter pitchy; anus ochreous; drums dirty testaceous, blackish at base; pectus testaceous.

Tegmina red-brown varied with testaceous to middle; thence hyaline varied with red-brown; nervures partly green, partly luteous: primary areolet blackish; front areolet enclosing an oval testaceous spot\*, all the discoidal areolets with diffused testaceous patches; a series of whitish hyaline connected diamond-shaped markings, edged with brown, runs from costal margin across the second and third transverse veins, a similar isolated spot is also situated upon the fourth transverse vein and is partly

lost in the colouring of the basal area, and another less distinct but similar spot forms the commencement of a sub-apical band crossing the first transverse vein from costal margin to apical third of external margin; a series of similar markings runs along the inner edge of the nerveless border between the longitudinal veins; wings brownish-red, with the margin, veins and flap brown, nerveless border hyaline white; length 1 inch, 4 lines; expanse 3 inches, 10 lines.

Sierra Leone (Morgan). B.M.

This is so entirely distinct, in the pattern of the tegmina, from the *P. Limbata* of Fabricius, that I cannot imagine it, for a moment, to be a variety of that species; the Fabrician type differs in no respect from our Angolan examples, but has the three dark spots (forming a triangle) upon the first three transverse veins; the basal area being moreover luteous, spotted with dusky and with costal area more or less green.

#### Species with Black, White, and Brown Wings.

### 40. Platypleura Limbaticollis.

Platypleura Limbaticollis, Stal, Ent. Trans. Ser. 3, 1, p. 571, n. 1 (1863); Hemipt. Afric. 4, p. 19, n. 11 (1866). \*Platypleura Limbata, Walker (nec Fabricius), List Homopt. Ins. 1, p. 23, n. 2 (1850).

Ashanti, Cape Coast. B.M.

#### Species with Transparent White Wings.

#### €41. Platypleura Quadraticollis, n. sp.

Head black with two transverse ochreous bands; vertex black spotted with ochreous; face ochreous, clothed at the sides with testaceous pubescence; rostrum testaceous, blackish at the tip; antennae black; prothorax testaceous with the impressed markings black; lobes pitchy, well developed: mesothorax dull castameous with six subtriangular spots, and two small rounded spots, all black:

metathorax testaceous, methoracic cross castaneous; tergum black, with the margins of the segments ochreous; venter testaceous, dusky at the sides, transversely streaked with piceous; pectus and drums testaceous; legs testaceous with the tibic somewhat piceous and the tarsi black; the coxe streaked with piceous.

Tegmina hyaline white with the nervures ochreous at base, otherwise black; costal margin black, foreflap green; primary areolet black, enclosing a testaceous spot: wings hyaline white with the veins of front area tawny, otherwise black; the flap greenish at base: length 1 inch, 3 lines; expanse 3 inches, 11 lines.

Lake N'Gami; S. Africa (Andersen). B.M. Allied to P. Limbaticollis.

OSECTION OXYPLEURA, Amyot & Serville.

 $^{ ilde{C}}42.$  Platypleura (Oxypleura) Polydorus.

Oxypleura Polydorus, Walker, List Homopt. Ins. 1, p. 32, n. 14 (1850).

Port Natal (Gueinzius). Type. B.M.

#### 43. Platypleura (Oxypleura) Patruclis.

Ocyplcura Patruclis, Stal, Öfv. K. V. A. Forh., 90 (1855). "Natal"—Stal.

### C44. Platypleura (Oxypleura) Bufo.

Oxypleura Bufo, Walker, List Homopt. Ins. 1, p. 27, n. 9 (1850).

East India. Type. B.M.

### 45. Platypleura (Oxypleura) Acutipennis, n. sp.

Head luteous crossed by a transverse black band; vertex testaceous crossed by a transverse black band; face testaceous, covered at the sides with white tomentum and

pubescent; prothorax testaceous with the margins of the lobes and the depressions black; mesothorax dark castaneous, with two subtriangular spots posteriorly, and an irregular streak on each side, black; metathorax ochreous clothed with white pubescence; tergum black, with a broad patch of white tomentum on each side, the margins of the segments dark castaneous; venter, drums and pectus testaceous, sparsely covered with white tomentum; legs testaceous.

Tegmina hyaline white; base, edge of corium, and a spot in the third and fourth discoidal and eighth marginal areolets, silvery pubescent; costal and internal edges testaceous, costal nervures dark castaneous, remaining nervures dark olivaceous; fore-flap rosy testaceous; wings hyaline white, nervures testaceous; nervures at base and on flap bordered with semi-opaque rosy-testaceous: length

1 inch, expanse 3 inches, 3 lines. Banda (Wallace). B.M.

#### 0 46. Platypleura (Oxypleura) Polita.

Oxypleura Polita, Walker, List Homopt. Ins. 1, p. 29, n. 11 (1850).

—? Type. B.M.

#### 47. Platypleura (Oxypleura) Clara.

Ocypleura Clara, Amyot & Serville, Hist. Nat. des Hemipt., p. 469, n. 1 (1843).

Oxypleura Passa, Walker, List Homopt. Ins. 1, p. 28,

n. 10 (1850).

Oxypleura Basistigma, Walker, I. e. p. 30, n. 12 (1850).
 Gambia; Congo (Curror); Kinsembo (Ansell).
 B.M.

### □48. Platypleura (Oxypleura) Brevis.

Platypleura Brevis, Walker, List Homopt. Ins. 1, p. 19, n. 25 (1850).

Ocicida Neurosticta, Schaum, Ber. Ak. Berl., p. 359 (1853); Peters' Reise nach Mozamb. Ins., p. 55; pl. 2, fig. 12 (1862).

Oxyploura Sobrina, Stal, Öfvers. Vetensk. Akad. Förhandl., p. 89, n. 1 (1855).

Oxypleura Patruclis, Stal, loc. cit., p. 90. n. 2 (1855).

Port Natal (Gueinzius); E. Africa (Speke); S. África (Livingstone). Type. B.M.

### 49. OPlatypleura (Oxypleura) Simplex.

-Platypleura Simplex, Walker, List Homopt. Ins. 1, p. 22, n. 29 (1850).

Congo. Type. B.M.

Stal, in his "Hemiptera Africana,' 4th vol., p. 22, sinks this as a synomyn of *P. Neurostieta* of Schaum,=brevis Walker.

#### ○ 50. Platypleura (Oxypleura) Cancscens.

Oxypleura Canescens, Walker, Journ. Linn. Soc. Zool. x., p. 83 (1867).

Aru Islands (Wallace). Type. B.M.

Allied to P. Clara.

#### 51. Platypleura (Oxypleura) Nivconotata, n. sp.

Head and vertex black, spotted with testaceous; face ash-coloured with the rugæ yellowish; rostrum testaceous, becoming black at tip; basal joints of antennæ black. terminal joints testaceous; prothorax testaceous with a central longitudinal black spot, (enclosing a mark like the letter Y), and the depressions, black; mesothorax reddish olivaceous, with two subtriangular central spots and a lateral streak, pitchy, edged without by a bright testaceous line; hinder region of mesothorax and metathorax densely covered with white tomentum; metathoracic cross luteous; tergum luteous varied with piceous with the margins of the segments greenish; drum covers dull piceous; venter, pectus and drums testaceous, sparsely covered with white tomentum; venter, clothed at the sides with long hairs: legs testaceous varied with piceous, and black at the knees: the tarsi of the two front pairs pitchy, of the hind pair testaceous;

Tegmina hyaline white, the costal margin and nervures

black, dotted with white; a subhyaline brown border to each of the transverse veins and a geminate submarginal series of spots of the same colour; primitive areolet with its basal half piceous, its apical half pale testaceous; fore-flap pale testaceous, with a green outer edge; wings hyaline white, nervures black; nervures at base and on the flap with semiopaque pale cinereous borders; tegmina and wings below with the nervures testaceous towards base, not white-spotted: length 10 lines, expanse 2 inches, 9 lines.

Lake N'Gami (Anderson). B.M.

Allied to P. Brevis, but quite distinct: P. Simplex also seems to be somewhat different, although possibly only a variety of P. Brevis: the type has the fourth discoidal areolet completely divided through the centre by a transverse vein, but the position of this vein is not quite the same on the two opposite tegmina.

## <sup>©</sup> 52. Platypleura (Oxypleura) Cercina.

CHatypleura Cervina, Walker, List Homopt. Ins. 1, p. 16, n. 22 (1850).

CPlatypleura Straminea, Walker, loc. cit., p. 17, n. 23 (1850).

North Bengal; North India. Walker's types. B.M. The Tettigonia Affinis of Fabricius has been turned out of Platypleura as the type of Stal's genus Porcilopsaltria: as I do not know the species, I am quite content to leave it so, although from the description I had supposed it to allied to Platypleura Falvigera.

Cicada (Platypleura) Pocyi, Sagræ and Walkerii of Guérin (Hist. fisica de la isla de Cuba vii., p. 178; 1857)

are probably species of Zammara.

Diagnostic Characters of Undescribed Cossonida. No. 1. By T. Vernon Wollaston, M.A., F.L.S.

#### FAMILY COSSONIDÆ.

#### (SUB-FAMILY PENTARTHRIDES.)

(Sectio a et subsectio bb). Oculis scutelloque distinctis.

GENUS MESOXENOPHASIS. (Nov. gen.)

Corpus minutum, fusiforme, angustum, nitidum, calvum, clare pallido-castaneum; capite subgloboso, rostro longiusculo, graciusculo, parallelo (aut postice etiam subgraciliore), oculis parvis, demissis, superioribus (i.e. supra haud latissime separatis); prothorace regulariter ovali (sc. in medio rotundato, antice et postice acqualiter angustiore), convexo, antice integro (nullo modo etiam obsolete constricto); scutello distincto, rotundato; clytris fusiformibus basi truncatis, convexis; metasterno breviusculo; abdominis segm. Imo et 2do inter se omnino suffusis (vix obsolete separatis). Antenna longiusculæ, graciusculæ, mox ante medium rostri insertæ; funiculi (5-articulati) art. 2do sequentibus sensim longiore; capitulo magno, elongato. Pedes longiusculi, crassiusculi; tursis art. 1mo vix elongato, 3tio multo latiore et profunde bilobo.

A Mesovenus (i.e. Amaurorrhinus), et φασίς, aspectus.

Obs.—Genus corpore fusiformi calvo, rostro graciusculo, oculis subapproximatis, antennis longiusculis subgracilibus, tarsorunque art. 3tio profunde bilobo Microtribo (Novæ Zealandiæ) simillimum; sed scutello conspicuo (nec obsoleto), oculis omnino demissis ac minus grosse granulatis, prothorace antice nullo modo constricto, funiculo minus laxo, capitulo minus abrupto, coloreque pallido, inter alia, facile distinguitur. A Scricotrogo differt corpore calvo et magis fusiformi, rostro antennisque gracilioribus, oculis subapproximatis demissis (nec late separatis prominentibus), prothoraceque integro.

The position of the present curious genus, which is founded upon a minute Cossonid detected by Captain Broun in New Zealand, and recently communicated to me by Dr. Sharp, appears to be amongst those particular types of the *Pentarthrides* in which the eyes and scutellum are developed, and the body is free from every trace of pubescence; for although Scricotrogus is the form near which I should be inclined to place it, I may add that the coarse decumbent fulvescent hairs with which that singular little insect is sparingly clothed is altogether exceptional in the groups with which it is associated. Were it not however for the existence of a scutellum I would rather have put Mesozenophasis alongside Microtribus,-which is equally peculiar (like Scricotrogus) to New Zealand, and with which in its exceedingly fusiform, medially-divided outline, comparatively slender rostrum and antennæ, subapproximated eyes, and bald surface it better agrees; nevertheless the total want of a scutellum in that genus throws it in reality into a different section of the subfamily.

In its minute size and pallid hue, as well as in its very oval, anteriorily unconstricted prothorax, and in the fact of its first and second abdominal segments being completely suffused inter sc. Mesovenophasis (which prima facie has much the appearance of a very diminutive Amaurorrhinus, or Mesorenus) presents a combination of characters which will still further tend to separate it from its immediate allies.

#### Mesoxenophasis Brouni, n. sp.

M. fusiformis, angustus, nitidus, calvus, clare pallidocastaneus; rostro (subgracili, subparallelo) parce sed distincte punctulato; capite convexo et antice minute foveolato; prothorace regulariter ovali (in medio sc. rotundato, antice et postice aqualiter angustiore), convexo, antice truncato et integro (nullo modo constricto), ubique parce et leviter punctulato; elytris ellipticis, convexis, grosse substriato-punctatis; antennis pedibusque vix obscurioribus, illarum capitulo sensim nigrescentiore. Subtus parcissime punctatus (punctis maximis in sternis sed in abdomine minutissimis, fere obsoletis).

Long. corp. lin.  $1\frac{1}{4}$ — $1\frac{1}{3}$ .

Habitat Novam Zealandiam, a Dom. Sharp ad describendum benigne communicatus.

In honorem Dom. Broun, scientiæ naturalis in Novâ Zealandiâ investigatoris, hanc speciem inter Cossonidas valde distinctam nuncupavi.

#### GENUS TYCHIODES.

Wollaston, Trans. Ent. Soc., Lond., 16 (1873).

Tychiodes Jansoni, n. sp.

S. elliptico-oblongus, depressus, nitidus, piceo-niger: capite parvo, inter oculos parce punctato et ibidem minute foveolato; rostro elongato, gracillimo, parallelo, cylindrico, politissimo, fere impunctato (punctulis minutis solum parce irrorato); prothorace transverso, subrotundato-triangulari, parce sed distincte punctato, æquali (aut postice in medio obsolete transversim impresso); elytris parallelo-oblongis basi recte truncatis, grosse punctato-(aut fere crenato-) sulcatis, interstitiis postice et versus latera convexis ac parce minutissimeque subseriatim punctulatis; antennis (gracilibus, longe pone medium rostri insertis) tarsisque clare rufo-ferrugineis, femoribus tibiisque robustis rufo-piceis. Subtus parce et sat minute punctulatus.

Long. corp. lin. 2.

Habitat ins. Philippine, a Dom. E. W. Janson communicatus, cujus in honorem nomen triviale dedi.

Obs.—Species T. Adamsi, insularum Japonicarum, valde affinis; sed differt corpore paululum majore, depressiore, vix magis parallelo, et conspicue obscuriore (sc. fere nigro); rostro vix longiore, ac sensim minute punctulato (nec omnino esculpturato); prothorace fere æquali, solum postice in medio obsolete transversim impresso; scutelloque submajore et magis pentagono.

Three examples of a Pentarthrid, which have been communicated to me by Mr. Janson as having come from the Philippine Archipelago, are most intimately related to the Tychiodes Adamsi—detected by Dr. A. Adams on the island of Awasima (off the north-west coast of Nipon) in the Japanese Group. Nevertheless, although belonging undoubtedly to the same type, I feel sure that it is distinct

as regards species,—being not only a trifle larger, and more parallel, than the  $T.\ Adamsi$ , but likewise a little more depressed, and of a conspicuously darker line. Its rostrum moreover is, if anything, somewhat longer, and more appreciably (however minutely) punctulated; and its scutellum is perhaps a little longer, and more strictly pentagonal in outline.

# (SUB-FAMILY COSSONIDES.) GENUS HIMATIUM.

Wollaston, Trant. Ent. Soc., Lond., 461 (1873).

Himatium variolosum, n. sp.

H. angustulum, sublineare, depressiusculum, opacum, piceo-nigrum, setulis grossis fulvo-cinereis subdemissis parce obsitum; capite fere ad oculos (demissos, sub-inferiores, late separatos) immerso; rostro angustulo, parallelo, profunde et inacqualiter punctato-rugoso; prothorace ovato-triangulari; antice conspicue constricto et ibidem in medio calvo ferrugineo, grosse sed haud profunde subreticulato-varioloso (nec punctato); elytris (prothorace vix latioribus) parallelis, grosse punctato-striatis, intersititis parce et minutissime subgranulatis; antennis tarsisque piceo-ferrugineis, femoribus tibiisque rufo-piceis; tarsorum art. 3tio conspicue bilobo.

Long. corp. lin. circa 2.

Habitat Africam Australem (sc. Promont. Bonie Spei),

a cl. E. W. Janson ad describendum missum.

Obs. A H. pubescente (e regione "Malabar") discedit corpore paulo majore, obscuriore, magis opaco, setisque robustioribus squamiformibus (nee pilis) pallidioribus obsito; prothorace grosse (sed haud profunde) subreticulato-varioloso (nee punctato); tarsorumque art. 3tio latiore et multo evidentius bilobo.

Of the present well-defined *Himatium* three examples have lately been submitted to me by Mr. Janson; and the species which they represent is manifestly very distinct from the (South-Indian) *H. pubescens*,—not merely in its rather larger size, darker hue, and more opake surface (which is sparingly clothed with thicker, paler, and

more scale-like setae), but likewise in its prothorax being (instead of sharply punctured) coarsely and irregularly, but not deeply, variolose and subreticulate, and in the third joint of its feet being wide and more cordate.

#### GENUS PHLŒOPHAGOSOMA.

Wollaston, Trans. Ent. Soc., Lond., 23 (1873).

#### Phlwophagosoma thoracicum, n. sp.

P. parallelo-fusiforme, angustulum, subcylindricum, convexiusculum, nitidum, nigro-piecum elytris piceis; rostro longiusculo, parallelo, subarcuato, sat dense punctulato; coulis parvis sed prominentibus; prothorace (pone medium latitudine elytrorum) magno, elongato, triangulari-ovato, antice obsolete constricto, sat grosse sed vix dense punctato; elytris subcylindricis basi rectissime truncatis, profunde punctato-, ant fere subcrenato-striatis, interstitiis subconvexis ac minutissime parcissimeque punctulatis; antennis pediluscate piceis.

Long. corp. lin. 2—24

Habitat in Novâ Zealandiâ, a Dom. Broun ad Dom.

Sharp nuperrime missum.

Obs.—Species P. corvino, Novae Zealandiae, primâ facie similis; sed differt colore magis piceo (nec atro), prothorace majore sublatiore subremotius punctato et antice obsoletius constricto, oculis magis prominentibus, elytrisque profundius punctato-striatis necnon ad basin conspicue rectius truncatis.

The two examples from which the above diagnosis has been drawn out have recently been communicated by Dr. Sharp, who received them from Captain Broun in New Zealand; and the species which they represent is evidently nuch allied to the *P. corvinum*. It is, however, unquestionably distinct from the latter,—differing from it not merely in its more piceous hue, but likewise in its larger or somewhat more developed prothorax (which is more obsoletely constricted in front, and a trifle more remotely punctured), in its eyes (although small) being more

prominent, and in its elytra being more deeply punctatestriate, as well as more straightly truncated (or less bi-arcuate at their base.

#### Phlæophagosoma dilutum, n. sp.

P. corviao affine, sed paulo minus et vix subangustius, colore minus nigro in elytris etiam pieco-castaneo): rostro præsertim antice sensim sublatiore, et a fronte obsolete subdiviso: scapoque conspicue longiore, sc. paulo ultra apicem rostri currente.

Long. corp. lin.  $1^3_4$ — $2^4_1$ .

Habitat Novam Zealandiam, ab Auckland a Dom. Lawson missum, et a cl. D. Sharp ad describendum nuperrime communicatum.

The present *Phirophogosoma* is very closely allied to the *P. corvinem* (likewise from New Zealand), but it appears to be altogether a little smaller and just appreciably narrower; and its colour instead of being deep black is dark-piceous, with the elytra pieco-castaneous. Its rostrum, too, in proportion to its size, is a trifle broader, and obsoletely impressed transversely between the eyes—causing it to appear obscurely subdivided, as it were, from the forchead; and its scape, which extends perceptibly beyond the apex of the rostrum, is more elongated.

#### Phlerophagosoma pedatem, n. sp.

P. præcedenti simile, sed paululum longius magisque parallelum (aut vix minus fusiforme), fronte distinctius foveolatà, tarsorumque art. 3tio multo majore latiore et valde profunde bilobo.

Long. corp. lin.  $2\frac{1}{2}$ .

Habitat in Nova Zealandia, una cum specie præcedenti ab Auckland a Dom. Lawson missum.

The above diagnosis is drawn out from a single example which has been communicated by Dr. Sharp as having been received from Auckland, in New Zealand, by Mr. Lawson; and, judging from the type now before me, the species would appear to be a trifle larger and, in proportion to its size, just appreciably more parallel, or less fusiform) than the P. dilutent; its forehead, too, is more distinctly impressed with a central line, or fovea; and the third joint

of its feet is very much larger and wider, and (instead of being nearly simple) most deeply bilobed.

#### GENUS BOROPHLŒUS.

Wollaston, Trans. Ent. Soc., Lond., 414 (1873).

Borophlæus Murrayi, n. sp.

B. angustulus, parallelus, nitidus, ater; rostro (breviusculo, latiusculo, fere parallelo, sc. postice paululum angustiore) profunde et rugose punctato, oculis subdemissis; prothorace subtriangulari-quadrato, antice distincte constricto, postice trisinuato, profunde, grossissime sed haud dense subsequaliter punctato (punctis postice in medio submajoribus); elytris grossissime punctato-sulcatis, interstitiis convexis et minute punctulatis; antennis tarsisque rufo-ferrugineis. Subtus parce, grosse et profunde punctatus; abdominis segmentis 1 mo et 2 do in medio longitudinaliter impressis; metasterno postice profunde canaliculato.

Fom? [vix species altera].—rostro subgraciliore et in medio transversim subgibboso; prothorace subdensius punctato, necnon (præsertim postice) evidenter carinulato.

Long. corp. lin. circa 3.

Hobitat in sylvis proceris California, nuper detectus a cl.A.Murray—cujus in honorem nomen specificum proposui.

Obs.—B. puncticulti, Woll., in Mexico degenti, affinis, sed differt corpore majore et grossius sculpturato, oculis minus prominentibus, fronte multo minutius foveolatâ, scutello majore, interstitiis evidenter punctulatis, necnon antennis tarsisque conspicue pallidioribus. Cossono crenato, Horn, e California et Oregon, simillinuus, et forsan ejus varietas topographica; sed paululum major, rostro subbreviore, antice vix minus dilatato, punctis mediis ad basin prothoracis minus longitudinaliter dispositis, scutello vix magis rotundato, interstitiis sub-evidentius punctulatis, tiblisque nigrescentioribus.

The present Borophleus has lately been communicated by Andrew Murray, Esq., by whom it was detected, only a few months ago, in the forests of California; and I have much pleasure in dedicating the species to its captor—whose interesting explorations across the Atlantic have

brought to light so many interesting facts. Although abundantly distinct specifically, it is closely allied to the *B. puncticollis*, Woll., from Mexico (and still nearer to the *Cossonus crenatus*, of Horn): but it is considerably larger and more coarsely sculptured, its eyes are less prominent, its frontal fovea is *very* much smaller, its scutellum is proportionately larger, its elytral interstices are more conspicuously (though minutely) punctulated, and its antenne and feet are of a much paler hue,—being rufo, or piceoferruginous.

#### GENUS EUTORNUS.

Wollaston, Trans. Ent. Soc., Lond., 491 (1873).

Eutornus congener, n. sp.

C. elongatus, parallelo-fusiformis, subcylindricus, nitidiusculus, rufo-ferrugineus sed antice et postice paululum obscurior; capite rostroque minute punctulatis et plus minus obsolete nigrescentioribus; prothorace elongato, cylindrico-ovato, antice profunde constricto, vix argutius punctulato; elytris subcylindricis (postice gradatim vix subattenuatis), striato-punctatis (striis versus suturam profundioribus), interstitiis depressis ac minutissime uniseriatim punctulatis, postice gradatim paulo nigrescentioribus; antennis pedibusque crassiusculis, fere concoloribus.

Long, corp. lin, vix  $2\frac{1}{2}$ .

Habitat Malacca, in collectione E. W. Janson.

Obs.—E. ferrugiaco, insularum Malayensium, valde affinis, sed vix (nisifallor) ejus varietas geographica; differt corpore submajore ac magis ferrugineo (se antice et postice minus obscurato), rostro paulo longiore latiore, antennis pedibusque subcrassioribus, necnon tibiis ad angulum internum evidentius calcaratis.

The single example from which the above diagnosis is compiled has been forwarded to me by Mr. Janson as coming from Malacca; and it is very closely allied to the Eutornus ferrugineus, so widely spread over the islands of the Malayan archipelago, from which it appears mainly to differ in its (probably) rather larger size and more ferruginous hue (it being less darkened both before and behind), as well as by its rostrum being a little longer and

broader, its limbs a little thicker, and by the inner angle of its tibiæ being produced into a somewhat more evident spinule.

Before closing this short paper, I may just mention that a considerable number of examples of my Eutorius dubius have lately been communicated by Dr. Sharp as having been received from New Zealand by Mr. Lawson, and that I am enabled consequently to correct the somewhat imperfect diagnosis of that Cossonid as given at p. 638 of my late paper in the Entomological Society's Transactions, and which was compiled from a single individual unusually small in stature and pale in hue. The following formula, therefore, will be found more nearly to characterize the species:—

#### Eutornus dubius.

E. elongatus, fusiformis, nitidiuseulus, niger (interdum subpiceo-niger) sed in elytris (præsertim værsus humeros) paululum dilutior aut picescentior; capite rostroque latis, crassis, punctulatis, illo convexo et valde exserto: prothorace elongato, ovato-cylindrico, antice profunde constricto, paulo grossius punctato; elytris subfusiformicylindricis, sat profunde striato-punctatis, interstitiis minutissime parcissimeque uniseriatim punctulatis; antennis piceo-ferrugineis; pedibus piceis. Subtus subalutaceus, parce punctatus.

Long. corp. lin, 12—22.

Habitat Novam Zealandiam, a Dom. Lawson sat copiose repertus.

And I may likewise state that an example of a Pentarthrum has been received lately from New Zealand by Mr. Lawson which seems to differ in no respect from my P. zealandicum (Trans. Ent. Soc. Lond., 598, 1873), except that its head and prothorax are a little more shining, its male rostrum is more deeply and sharply channeled, and its prothorax is obsoletely impressed in the centre behind. My belief is, that it represents a mere local state, or race, of that species; nevertheless I will propose for it the varietal

name of canaliculatum, in the event of future material proving it to be distinct. The following short formula may therefore be added to the diagnosis of the *P. zealandicum*, at p. 598 of my late paper:—

#### Pentarthrum zealandicum.

 $rar. \beta.$  (canaliculatum). Capite prothoraceque paulo nitidioribus, rostro profundius argutiusque canaliculato, prothorace postice in medio subimpresso.

Descriptions of new African Lepidoptera: by A. G. Butler, F.L.S., F.Z.S., &c.

In the Collection recently brought home by Mr. Monteiro are several new species of Aerau, Pseuducrau, &c., which are especially interesting as illustrations of protective assimilation, the moths in the Collection are principally interesting from the fact that very many of them are exceedingly closely allied to Indian forms, so much so indeed that an experienced Lepidopterist, upon looking into the box where they were all together, imagined them to be from E. India.

To the two or three species now described from Mr. Monteiro's Collection, I have added one or two, taken by Dn Chaillu in Gaboon.

#### SUB-FAMILY DANAINÆ. Bates.

GENUS AMAURIS. Hübner.

# 1. Amauris Hyalites, n. sp.

Primaries above black, brownish at base, spotted with hyaline white as in A. Egialea, excepting that the two central spots are more equal in size and further apart, and that the central spot of the second oblique series is not subdivided into two spots, but is enlarged and crossed by both the radial nervures; secondaries black at base; central area quadrately whitish hyaline, ochre-tinted at abdominal margin; outer margin broadly black, becoming brownish at anal angle, enclosing eight submarginal white spots; body, thorax black white spotted, abdomen brownish ochraceous, whitish below; wings below paler than above, primaries with apical area olivaceous brown; secondaries with base and outer margin brownish ochraceous; three

spots at origin of median nervure, a striole on costa and nine submarginal spots on external border; expanse of wings, 3 inches, 3 lines.

Ambriz (J. J. Monteiro). B.M.

Allied to A. Egialea and A. Ochlea, there were three specimens in Mr. Monteiro's Collection.

#### SUB-FAMILY ACREINE. Bates.

GENUS PLANEMA. Doubleday.

# Planema Epiprotea, n. sp.

♀. ≀ Acrœa Eurita, Hewitson, Exot. Butt. 4, Acr. pl. v., fig. 29 (1867).

Male above smoky red-brown, the nervures dusky; primaries with the apical half dark brown, a regular oblique dull ochreous fasciole from first subcostal to second median branch, at about one-third distance from the base of wing; secondaries with the outer margin, especially towards apex indistinctly smoky: a number of black spots at base: body, thorax black, white-spotted, abdomen dark brown, yellow spotted: wings below altogether paler and clearer, primaries with a blackish patch at end of cell, up to pale ochreous fasciole; a black spot near base of costa; secondaries with about seventeen black spots at base: expanse of wings, 2 inches, 8 lines.

Female above smoky brown; primaries with a regular oblique white fasciole from costal nervure to second median branch; basal area inclining to reddish-brown excepting at centre of inner margin, where there is an illdefined subcuneiform creamy patch; secondaries with central area creamy, interrupted by dusky nervures and interner vular folds; base spotted with black; body, thorax black, white spotted, abdomen dark brown yellow spotted, the margins of the segments white; wings below paler than above, primaries with a blackish band at end of cell. up to white fasciole; black costal spot as in the male; secondaries with the base ochraceous, spotted with black as in the male: expanse of wings, 2 inches, 8 lines.

Gaboon ( $Du\ Chaillu$ ). B.M.

This species is allied to P. Protea of Trimen, of which we have three males and two females, and to P. Jodutta of Fabricius, of which we have three males and one female: its natural position will be between P. Jodutta and P. Esebria of Hewitson (a species very close to, but apparently distinct from P. Servona of Latreille).

#### 3. Planema Metaprotea, n. sp.

Male above smoky-brown; primaries with a regular oblique creamy subapical fasciole of the shape and colour of that of P. Protca; the basal half of subcostal and median nervures and a broad subtriangular trifid patch on inner margin tawny-ochreous, interrupted by the black nervures; secondaries tawny-ochreous; outer margin, nervures on disc and internervular folds smoky-brown, base smokybrown, black spotted: body, thorax black, white spotted, abdomen dark brown, yellow spotted, the margins of the segments white: wings below dirty ochreous, nervures and folds black; primaries with a blackish fasciole at end of cell, and a white fasciole immediately beyond it: a black and white spot at base of costa; secondaries with about thirteen black spots at base, arranged as in P. Protea: expanse of wings, 2 inches, 5 lines.

Female above pale tawny; primaries with basi-costal area dusky; apical half smoky-brown, subhyaline; the nervures and folds blackish; a broad pale tawny subapical fasciole from costal nervure to second median branch, but subconnected (by a streak of the same colour on first median interspace) with the discal tawny area; secondaries with the outer edge, and the nervures and folds of outer half dusky: body as in male: wings below as in male: expanse, 2 inches, 7½ lines.

Ambriz (J. J. Monteiro). B.M.

Allied to P. Protea; its natural position is apparently between that species and P. Carmentis of Doubleday, of which we have four males and one female: the latter species is quite distinct from P. Jodutta, although the females, from the similarity of their colouring, seem more nearly allied than the males.

# P. Monteironis, n. sp.

Female above smoky-brown; primaries with a broad

angulated subapical band from costal nervure to near first median branch and a bifid patch on inner margin white, divided by black nervures; secondaries with a broad central white band; nervures and internervular folds on disc dusky; base black spotted; body as in preceding species; primaries below with apical area to external angle greyish olivaceous, the nervures and folds black; secondaries with external area greyish olivaceous, interrupted by black folds and nervures: base slightly pinkish, with about fourteen black spots, arranged much as in *P. Protea*: expanse of wings, 2 inches, 8 lines.

Ambriz and Bembe (J. J. Monteiro). B.M.

This may possibly be a form of *P. Protea*, although I think not; the Bembe specimen approaches more closely to the Natal species than the type from Ambriz, the second median branch of primaries being broadly bordered with dusky so as to cut off the end of the subapical fasciole, leaving it as a spot upon first median interspace.

# 5. Planema Elongata, n. sp.

3, 9. Acrea Eurita, Hewitson, Exot. Butt. 4, Acr. pl. 5, figs. 28 and 30 (1867).

Intermediate in character between *P. Umbra*, Drury, (of which we have a pair) and *P. Aleincoë*, Felder\* (of which we have three males, one female, and a pupa-skin); it is distinguished from both by the more perpendicular and differently shaped band of primaries, which in the female is ochroous, and by the dark basal half of the same wings: expanse, 3 inches, 4 lines.

Gaboon (Du Chaillu)  $\mathcal{S}, \mathcal{P}$ . B.M.

A very distinct and well marked species, the sexes of which were rightly divined by Mr. Hewitson, although he scrupled to separate it from the perfectly constant *P. Euryta* of Linnaeus: of the latter species we have three males and two females, all from Sierra Leone: I have no doubt whatever that the two insects figured at pl. iv., fig. 26 and pl. v., fig. 31 are also sexes of a fine distinct species allied to *P. Euryta*, for which I propose the name of *P. Eucisa*: Mr. Hewitson gives Congo as its locality.

<sup>\*</sup> A. Eurita, Hewitson, pl. 4, tig. 23.

#### 6. P. Formosa, n. sp.

Male above dark brown, primaries with basal area blackbrown, limited by a broad strongly angulated, internally trisinuated tawny band from costa to inner margin; secondaries with a central narrow white band, narrowing from inner margin to costa; base black spotted, nervures and folds black; body, thorax black, white spotted, abdomen black above with the edges of the segments tawny, below tawny; wings below paler than above, apical area red-brown, the nervures and folds blackish; primaries with transverse band, orange; secondaries with basal area bright tawny, with about sixteen large spots: expanse of wings, 3 inches, 6 lines.

Female similar to P. Euryta  $\mathfrak{P}$ , but with the white band of primaries carried up more squarely to costal nervure, not sinuated internally at end of cell, but deeply excavated at base of second median interspace; the lunate subanal spot merely indicated by a whitish nebula enclosing a black spot; outer two-thirds of inner margin creamy; spots at base of secondaries smaller and differently arranged: expanse of wings, 3 inches, 8 lines.

3. Cabinda, ♀. Ambriz (J. J. Monteiro). B.M.

The most handsome of the species of *Plancma*: it is allied to *P. Eavyta*.

GENUS ACR. EA. Fabricius.

SECTION TELCHINIA. Doubleday,

# 7. Aerwa Pseudolycia, n. sp.

Wings above with the central area broadly white, base broadly blackish, with black spots, partly encircled with white; primaries with four conspicuous black spots on the white area, the first in cell, the second near base of first nedian interspace, the two others on interno-median interspace; a large irregular black blotch at end of cell, beyond which is a slightly oblique sub-apical white band, trisimuate externally, so as partly to enclose the first three of a submarginal series of six tawny spots; external area smoky-brown; secondaries with 2n irregular discal series

of eight conspicuous black spots; outer margin broadly black, bordered internally by a series of eight minute white dots: body, thorax black, white-spotted, palpi tawny: abdomen black at base and anus, tawny in the centre, white spotted: wings below sericeous, paler than above; the tawny spots brighter: the white spots larger; primaries with base greyish, exhibiting three or four distinct black spots; secondaries black at base, white spotted; otherwise as above: expanse of wings, 2 inches, 31 lines.

" Quanza, August, 1872." (J. J. Monteiro). B.M.

A very distinct and beautiful little species having a vague resemblance to A. Lycia of Fabricius.

#### SUB-FAMILY NYMPHALINÆ. Bates.

GENUS PSEUDACRÆA. Westwood.

8. Pseudacrwa Fulvaria, n. sp.

Male above smoky-brown; the nervures and folds black; primaries with a broad strongly angulated tawny band, widening from subcostal nervure to inner margin; a black elongate spot enclosing two white dots at base: a spot near the end, and two, (placed obliquely), in the middle of the discoidal cell; a spot near base of interno-median interspace, black with a tawny margin; secondaries with central area, from subcostal nervure to inner margin, tawny-ochreous, deeper coloured at base; a black spot enclosing a whitish dot at base and six black spots in two triangular series beyond it; body, thorax black, white-spotted, abdomen ochreous, with black dorsal line: wings below paler, apical area reddish or ochraceous brown, the nervures and folds blackish; primaries with transverse band orange; secondaries with basal area bright tawny, with about ten conspicuous black spots and two or three white dots; central area crossed by a diffused white band: expanse of wings, 3 inches, 1 line.

Female above smoky-brown; the nervures and folds black; black spots as in male; primaries with an oblique broad creamy band from costal nervure to just below second median branch, where it becomes obsolete, but is represented by a greyish nebula on centre of first median branch and reappears as a creamy ochraceous patch on inner margin; secondaries with the base greyish ochraceous, black-spotted; a central diffused creamy band from costa to inner margin, which is ochreous; body, thorax black, white-spotted; abdomen ochreous with black dorsal line; wings below paler, bands white instead of creamy; secondaries with basal area bright tawny, with black spots as in the male; palpi ochreous: expanse of wings, 3 inches, 7 lines.

 $\mathcal{S}.$  Ambriz,  $\,\circ\,.$  Cabinda (J. J. Monteiro). B.M.

Mimics the two sexes of *Planema Formosa*, the new species here described from the same localities, and is allied to *Pseudacraa Simulator*.

#### 9. Pseudacræa Striata.

 Ç.? Diadema Eurytus, Hewitson, Exot. Butt. iv., Diadema, pl. iii., fig. 9 (1868).

Male. Prinaries smoky-brown, the nervures and folds blackish; interno-median area diffusely tawny: a black spot on lower disco-cellular nervure, a second obliquely above it within cell; two obliquely at centre of cell and one near base of interno-median interspace, also a black spot enclosing two whitish dots at base, all these spots with pale tawny zones: secondaries tawny: the outer margin, excepting at anal angle broadly smoky-brown: base black-spotted; body, thorax black, white-spotted; abdomen ochreous with blackish dorsal line: wings below altogether paler; the black spots more conspicuous; secondaries with nine black spots no basal area, two of them, enclosing white dots, at base; palpi ochreous: expanse of wings, 3 inches, 3 lines.

Ambriz (J. J. Monteiro) J. B.M.

A species quite distinct from *P. Euryta* and evidently mimicking *Planema Umbra* of Drury: there is another form, figured by Mr. Hewitson (pl. iii., fig. 8), and which is so evidently a mimic of my *P. Elongata*  $\mathfrak{P}$ , that I cannot resist naming it *P. Metaplanema*, *n. sp.* 

#### 10. Pseudacræa Epigea, n. sp.

Female. Colours above and below of *P. Euryta &.* (*Hirce* Drury) and therefore possibly only a second form of the  $\mathfrak{P}$ .: expanse of wings, 3 inches, 4 lines.

2.: expause of wings, 3 inches, 4 lines
West Africa. B.M.

I should have supposed this to be the typical female of P. Hirre (Euryta 3), were it not for the fact that the oblique band of primaries is rather broader than in that species, whilst the white band of the ordinary female is precisely similar; it may however very likely be simply a variety; we have a white-banded female from Ambriz, which agrees excepting in colours, with the present species, therefore it is possible that a broad-banded male may occur; if so, it will have to be considered as a local race of P. Euryta.

# HETEROCERA.

#### FAMILY ZYGÆNIDÆ.

GENUS MASSAGA. Walker.

# Massaga Monteirona, n. sp.

Allied to *M. Maritona*, Butler, but without white bands; primaries sericeous, invisible green, the nervures and a narrow perpendicular band crossing the wing beyond the cell, pale green; secondaries invisible green, the nervures on disc washed at the centre with pale green (giving the effect of a band of strioles); body, thorax black, head, collar and tegulæ crimson; abdomen invisible green, anus yellow; primaries below glossy blue black, the nervures steel-blue: secondaries glossy blue-black, the nervures (excepting at base and outer margin and a patch on abdominal margin) creamy white; body, thorax black at the sides and behind, pectus, head and femora of less crimson; abdomen dark green, anus bright yellow; expanse of wings, 2 inches, 2 lines.

Cabinda (J. J. Monteiro). 1 specimen. B.M. A very distinct and beautiful species.

GENUS ZYGÆNA. Fabricius.

12. Zygæna Ochreipennis, n. sp.

Primaries above ochreous, semitransparent; the apical margin from middle of costa to middle of inner margin invisible green; secondaries crimson, semitransparent; the costa bright ochreous; apex and outer margin dull black; body, thorax black with the tegulæ ochreous; antennæ black; abdomen above crimson, the basal segments and anus black; below ochreous; wings below the same as above: expanse 1 inch.

Ambriz (J. J. Monteiro). B.M.

A very distinct and pretty little species.

# Explanation of Plate VI.

- Fig. 1. Hemipharis castanea, O. Jans. (ante p. 133).
  - " 2. Diaphonia Mniszechii, O. Jans. (ante p. 179).
  - , 3. Schizorhina concinna, O. Jans. (ante p. 134).
  - " 4. Diaphonia Parryi, O. Jans. (ante p. 135).
  - " 5. " gulosa, O. Jans. (ante p. 136).
  - " 6. Eupoccila inscripta, O. Jans. (ante p. 180).

# Descriptions of new Buprestidae: by Edward Saunders, F.L.S.

In the following pages I have commenced a series of descriptions of the new species of Buprestidæ in my collection, and I hope from time to time to continue these descriptions until I have gradually worked through the family. I have been careful, in single specimens, to describe only such as new species which I feel sure will not eventually prove to be varieties of previously known forms. I am glad to have an opportunity of publishing through the medium of this periodical as I feel that such a publication is very useful and ought to be much more generally employed.

EDWARD SAUNDERS.

Raglans, Reigate, 29th February, 1874.

#### Sternoeera Boucardii, E. S.

Caput æneo-nigrum punctatum. Thorax profunde reticulatus, inter reticula ochraceo pilosus. Elytris obscure æneo-viridibus utrinque maculâ basali, macula sub humero, et maculis duodecim post medium ochraceopilosis, ornatis. Subtus nigra, abdominis lateribus fulvo

maculatis, pedibus fuscis.

Head bronzy black, deeply and rugosely punctured. Thorax bronzy black, deeply reticulated, raised portions smooth and shining, impressions filled with pubescence of a dull brownish yellow colour. The dorsal line is defined by two parallel carinae branching off at the base into the general reticulation. Elytra very finely rugose, with indications of four longitudinal raised lines, and covered between the rugosities with exceedingly short ochreous hairs, each elytron has a round spot at the base, an oval spot behind the shoulder, and twelve spots behind the middle, covered with ochre coloured pubescence, arranged thus, three large round spots along the hind margin, four small round spots along the suture, three other larger ones forming a diagonal line from the side just below the middle downwards to the suture, and two others between those

of the margin and suture; apex very finely bidentate. Beneath black, punctured, each side of the segments of the body with a brown pubescent spot on its upper margin; legs clear testaceous brown, antennæ wanting.

Length, 24 lines; breadth, 11 lines.

Hab. Ribe, East Africa.

This grand species, which should begin the genus, I have named after Mr.  $\Lambda$ . Boucard who kindly presented me with the specimen.

#### Sternocera syriaca, E.S.

Caput rugosum. Thorax viridis disco foveolis plurimis flavopilosis impresso, lateribus flavo maculatis. Elytra testaceo-fusca, maculis plurimis minutis albidis ornata. Subtus viridis lateribus maculis flavis quatuor ornatis.

Head rugose, green. Antennæ testaceous brown. Thorax green, disk with numbers of small deep pits filled with yellow pubescence. Sides each with a large yellow pubescent spot. Elytra testaceous-brown, rugosely punctured, with two spots at the base, a spot behind the shoulder and the disk covered with small spots of a whitish pubescence. Apex of each elytron obsoletely tridendate. Beneath green, punctured, with four large yellow pubescent spots on each side. Legs testaceous-brown.

Length, 16 lines; breadth, 7 lines. Hab. Syria.

Should precede irregularis, Klug.

# Amblysterna bilineata, E. S.

Obscure cupreo-fusca. Thoracis lateribus subcompressis margine auteriore elevatâ. Elytris subrugosis, disco utriuque lineâ angustâ albido-pilosâ, ab scutello fere ad apicem extensâ, ornato. Subtus cuprea.

Dull coppery brown, disk of the elytra with coppery

reflections.

Head rugose and pubescent in front. Thorax rugosely punctured with the sides somewhat compressed, front margin raised, base acutely lobed, impressed in the middle. Elytra somewhat rugose, their sides strongly and rugosely punctured; on the disk of each is a very narrow whitish

hairy line extending from the scutellum almost to the apex, each apex minutely bidentate, beneath coppery, covered with a slight whitish pubescence.

Length, 8 lines; breadth, 3 lines.

Hab. Loando, Dr. Welwitsch.

Should follow *vittipennis*, Fabr., from which it differs by the longer shape, and compressed sides of the thorax, the disk of which is also more strongly and rugosely punctured, and especially by the narrow pubescent lines of the elytra, which extend from the scutellum almost to the apex.

# Chrysaspis propinqua, E. S.

Capite thoraceque cyaneo-nigris, hoc lateribus viridibus, lineâ dorsali elevatâ. Elytris viridibus, disco utrinque cupreo. Subtus igneo cuprea, prosterno viridi.

Head and thorax blue black, the latter with its sides green. Elytra green, the disk of each coppery. Beneath

fiery copper colour, prosternum green.

Head strongly channelled between the eyes. Thorax punctured, sides subrugose, anterior margin elevated, disk with a raised dorsal line. Elytra punctate striate, sides very closely punctured, apex denticulate. Beneath pubescent, except the prosternum.

Length, 15 lines; breadth, 5 lines. Hab. W.C. Africa, Dr. Welwitsch.

Differs from *clongatula*, Crotch, which it should precede, by its colour and its less parallel form, by the sides of the thorax being more rugose, by the dorsal line being more raised, and by the underside being more thickly pubescent.

# Steraspis fusca, E. S.

Purpureo-fusca, thorax nitidus, punctatus, lateribus foveatis, lineâ dorsali subimpressâ punctatâ. Elytra conferte punctata et striata, marginibus utrinque subcupreo-vittatis. Subtus pilosa, viridiaenea.

Purplish brown. Beneath and legs bronzy green:

antennæ cyaneous.

Head excavated and channelled between the eyes. Thorax shining, strongly but sparsely punctured. Sides rounded, each with a longitudinal impression, the bottom of which is very closely and finely punctured. Dorsal line somewhat impressed and longitudinally punctured in the middle. Elytra closely punctured and striated, along each margin is a somewhat coppery impression covered with short greyish hairs. Apex of each with a single tooth. Beneath pubescent with a smooth line down the middle.

Length, 13 lines; breadth,  $4\frac{1}{2}$  lines.

Hab. White Nile.

Should follow semigranosa, Sol.

# Paracupta anciventris, E. S.

Supra purpureo-cyanea, subtus ænea. Capite inter oculos aureo. Thorace cyaneo, punctato, lineâque rugosa prope marginem, impresso. Elytris cyaneo-nigris, prope scutellum purpureo-micantibus, minute et sparsim punctatis, postice denticulatis. Subtus minute punctata.

Above of a purplish blue tint, head golden, beneath and

legs bronzy.

Head golden, excavated between the eyes, each side of the excavation bearing a small oblique purple tubercle. Thorax cyaneous, anterior margin embracing the head to beyond the eyes, sides nearly straight; base nearly twice as wide as the anterior margin; surface punctured, especially at the sides, dorsal line narrowly impressed, golden, near each side and parallel to it, is a rugose im-Scutellum bronzy. Elytra blue black; pressed line. near the scutellum and for some way along the suture purple. Surface very minutely and sparsely punctured, in certain lights very slight indications of raised lines are perceivable; sides converging to the apex from about the middle, and denticulated. Beneath and legs bronzy, very shining and finely punctured. Antennæ flavous, first two joints golden.

Length, 15 lines; breadth,  $5\frac{1}{2}$  lines.

Hab.

Should follow *rutilans*, H. Deyr. A most extraordinary form, having the tarsi concolorous with the rest of the legs.

#### Paracupta Samoensis, E. S.

Læte viridis. Thorace lineâ dorsali impressâ, lateribus

longitudinaliter foveatis. Elytris confertissime punctatis, utrinque costis quatuor suturâque elevatis, apice igneocupreâ. Subtus abdomine subflavo, interdum cupreo.

Antennis pedibusque testaceis.

Bright green, head punctured, excavated and channelled between the eyes. Thorax punctured, dorsal line impressed; sides each with a straight longitudinal fovca, which is very closely and finely punctured. Elytra very closely and finely punctured, each with the suture and four lines raised and smooth; sides denticulate posteriorly, apex fiery copper colour. Beneath green, punctured, body somewhat testaceous, in one specimen coppery; anal segment emarginate; antennæ and legs testaceous.

Length, 7 lines; breadth, 23 lines.

Hab. Island of Samoa.

The specimen described is a male. This species should follow *wanthocera*, Boisd.

#### PSEUDO-CHRYSODEMA.

Ab Chrysodema differt, pedibus testaceis, antennis aut testaceis aut fuscis, et humeris valde angulatis.

This genus is difficult to characterize and yet I feel little doubt that it is distinct. It has quite the general appearance of *Chrysodema*, but differs in having the flavous tarsi of *Paraeupta*. It has also strongly angulated shoulders, this latter character distinguishes it from all the allied genera.

I only know of the species here described.

Type of the genus P. Badenii, E. S.

# Pseudo-chrysodema Badenii, E. S.

Cyanea, capite excavato, thorace lævi, linea dorsali antice elevatâ, lateribus aureo foveatis, flavo tomentosis. Elytris irregulariter foveatis, foveis aureo-æneis, interstitiis elevatis, eyaneis, humeris valde angulatis. Subtus ænea, prosterno quatuorque cingulis abdominalibus cyaneis. Pedibus cyaneis tarsis flavis.

Head cyaneous with eneous reflections, shining and finely punctured, deeply excavated between the eyes. Thorax cyaneous, sides somewhat straight, hind angles acute, base shallowly lobed; surface smooth and shining, dorsal line slightly raised; near each posterior angle is a large, finely punctured, golden fovea, filled in its middle with yellow pubescence, on each side of the dorsal line, at its base, is a narrow bronzy punctured line. Elytra cyaneous with four very irregular somewhat broad raised lines, and with numerous shallow bronzy foveæ irregularly disposed between them. Sides strongly angulated behind the shoulders, sharply denticulate posteriorly. Beneath bronzy, prosternum and the hind margins of the segments of the body steel blue, tibiæ blue, tarsi, except the last joint, flavous. Antennæ flavous, first two joints green.

Length, 13 lines; width, 4\frac{3}{4}.

Hab. Island of Yap. Carolina group.

I have named this fine species after Dr. Baden, of Altona, to whom I am indebted for this and many others of my rarest species.

#### P. Schmeltzii, E. S.

Obscure enea, capite excavato. Thorace cyaneo ruguloso, lateribus æneo-foveatis. Elytris æneis, suturâ tribusque lineis elevatis cyaneis, lateribus prope humeros angulatis, postice denticulatis. Subtus ænea, segmentis abdominalibus

cyaneo cinctis. Antennis fuscis, tarsis flavis.

Head bronzy, punctured, excavated between the eyes. Thorax eyaneous, rugose, with bronzy punctures, dorsal line raised and smooth, on each side near the posterior angle is an oval shaped bronzy fovea bordered on its exterior margin by a raised line. In shape and style the thorax closely resembles that of *Chrysodema auroforcata*, Guer. Elytra bronzy, very finely punctured, each with the suture and three strongly raised lines cyaneous and smooth; sides strongly angulated at the shoulders, and sharply denticulate behind the middle. Beneath bronzy green, rugose, edges of the abdominal segments cyaneous. Antennæ brown, tarsi flavous.

Length, 11 lines; breadth, 4 lines.

Hab. Pelew Islands.

This species closely resembles in general appearance Chrysodema aurofoccata, Guer.

#### Evides intermedia, E. S.

Caput viride, valde sulcatum. Thorax niger, punctatus, tribus lineis marginibusque punctatissimis, viridibus. Elytra rugoso-punctata, quatuor lineis elevatis nigris ornatis. Subtus aureoviridis.

Head green, deeply punctured and narrowly sulcate between the eyes, covered with very short black bristly hairs. Thorax black, deeply punctured; anterior and lateral margins green, dorsal line, and a somewhat wide line on each side, green, impressed, and very finely and closely punctured. Elytra green, largely and rugosely punctured, each with the suture, and four raised lines, smooth and black; sides posteriorly denticulate. Beneath and legs, golden green, punctured, covered with short whitish hairs.

Length, 10 lines; breadth, 3½ lines.

Hab. W. Coast of Africa.

Allied to Gambiensis, L. & G., from which the sculpture

and shape of the thorax easily distinguish it.

Should be placed between Gambiensis, L. & G., and pubicentris, L. & G. I believe this to be the species known in some collections under the manuscript name of sulcifrons, Laferté.

# Chrysesthes auronotata, E. S.

Viridianea, thorace rugoso-punctate, lineâ dorsali impressâ, lateribus lineâ viridi angustâ ornatis. Elytris rugose punctatis, suturâ quatuorque lineis elevatis, utrinque tribus maculis minutis aureis notatis. Subtus aureo-viridis.

Head golden green. Thorax purplish, with green reflections, punctured, the punctures green. Each side has a narrow golden line running parallel to the margin. Scutellum fiery copper colour. Elytra purplish, suture green, each elytron with three small golden spots, one on the first raised line near the base, the second, a very small one, on the second line, just above the middle, and the third, also very small, between the first and the second lines, the shoulders also have a greenish tint. Beneath golden green.

Head rugose in front, channelled on the vertex. Thorax with the sides slightly rounded, and the base shallowly

lobed, disk punctured, the punctures close together and often confluent on the sides, dorsal line slightly impressed. Elytra rugosely punctured, each with the suture, and four longitudinal lines raised and smooth, with three small punctured spots as described above. Apex denticulate. Beneath punctured, shortly pubescent.

Length,  $11\frac{1}{2}$  lines; breadth,  $3\frac{3}{4}$  lines.

Hab. Honduras.

Should follow gymnopleura, Perty.

# Pelecopselaphus Chevrolatii, E. S.

Obscure æneoviridis, capite, thoracis lateribus, elytrorumque tribus maculis lateralibus, cupreis. Thorax linea dorsali impressa. Elytra thoracis angustiora, postice quadri-costata, lateribus denticulatis. Subtus cupreo-aurea.

Bronzy green, head coppery in front, sides of the thorax with coppery reflections. Sides of elytra with a coppery red spot behind the shoulder, a second one just below the middle, and a small one near the apex. Beneath coppery golden.

Head impressed between the eyes, rugose. Thorax deeply punctured, dorsal line impressed. Sides slightly sinuous, produced and rounded just above the hind angles, which slightly embrace the base of the clytra, above each angle is a short diagonal impression. Elytra considerably narrower than the thorax, rugosely punctured, each with four raised lines, strongly marked near the apex, the two inner ones disappearing as they approach the base. Sides very slightly sinuate above the middle, denticulate posteriorly. Beneath finely punctured.

Length,  $10\frac{1}{3}$  lines; breadth, 3 lines.

Hab. Chontales, Nicaragua.

This pretty species should precede angularis, Scheenh.

# Pelecopselaphus acutus, E. S.

Caput cupreum, rugosum. Thorax viridiaeneus, lateribus subeupreis, valde et dense punctatus, lineâ dorsali basi impressâ. Elytra acuminata, utrinque quatuor eostis elevatis, obscure viridia, costis purpureo-micantibus, lateribus postice denticulatis. Subtus aeneo-aureus.

Head coppery brown. Thorax dark bronzy green, its

sides with a purplish tint. Elytra dark green, the elevated lines with purplish reflections. Beneath and legs bronzy

golden colour.

Head rugose and sulcate between the eyes. Thorax with the sides regularly but slightly rounded, base straight; surface very closely punctured in front and on the sides, dorsal line impressed at the base; the puncturation of the portion just above the scutellum finer and more sparse. Elytra acuminate, the sides converging from the base in very slightly curved lines; surface punctured, except just below the scutellum. Each elytron with four raised smooth lines, sides denticulated posteriorly. Beneath finely and closely punctured.

Length, 12 lines; breadth, 3½ lines.

Hab. Panama. Nicaragua.

The longer thorax, the absence of the dorsal channel and of any lateral depressions distinguish it from its allies. It should follow *P. strictus*, Linn.

#### Halccia bicolor, E. S.

Supra cupreo-ænea. Subtus, viridi-ænea. Thorace punctato, lateribus postice subangulatis, lineâ dorsali angustis-simâ et postice punctatâ. Elytris subrugosis striatis, utrinque post medium tribus impressionibus minutis notatis. Subtus punctatus, pedibus cyaneis.

Above dull coppery bronze colour, beneath bronzy green. Head punctured, slightly impressed in front. Thorax with the sides diverging in straight lines to just above the hind angles, then sub-parallel to the base, thus forming a very obtuse angle. Surface strongly punctured, especially at the sides, dorsal line extremely narrow and smooth, met at its base by a large puncture; above each posterior angle is a very slight rugose impression. Elytra very finely striated and punctured, the interstices somewhat rugose; on each, behind the middle, may be seen three very small impressions arranged in a triangular shape; sides denticulate posteriorly, apex of each pointed. Beneath and legs punctured, finely pubescent on the sides, tibiae and tarsi cyaneous, femora cyaneous above.

Length, 10 lines; breadth,  $3\frac{3}{4}$  lines. Hab. Ega, Amazons. H. W. Bates. Should follow chrysodemoides, E. S.

# Halccia chrysodemoides, E.S.

Viridi-aurea. Thorace punctato, lineâ dorsali impressâ. Elytris utrinque quatuor costis suturâque elevatis, levibus, lateribus postice denticulatis. Subtus viridis, femoribus

tibiisque anterioribus cyaneis.

Bright golden green, head deeply and rugosely punctured between the eyes. Thorax with the anterior margin and the base nearly straight and with the sides only very slightly rounded; surface punctured, especially at the sides, dorsal line impressed. Elytra irregularly and rugosely punctured, each with suture and four lines raised, of these the third is abbreviated and twice interrupted; sides slightly sinuate below the shoulders, denticulate posteriorly; apex somewhat truncate, finely denticulate. Beneath green, punctured, two front pairs of legs with the femora and tibic cyaneous. Antenna cyaneous.

Length,  $10\frac{1}{2}$  lines; breadth,  $3\frac{3}{4}$  lines.

Hab. Chontales, Nicaragua.

Resembles a *Chrysodema* in general aspect. It should follow *parallela*, E. S.

# Halecia parallela, E. S.

Viridiænea, capite plano, punctato. Thorace punctato, lineâ dorsali postice valde impressâ. Elytris parallelis, punctato-striatis, utrinque foveis duabus punctatis discali-

bus ornatis. Subtus cuprea, pedibus viridiæneis.

Bronzy green. Head flat in front, deeply and closely punctured. Thorax with the sides rounded, hind angles acute. Surface punctured, rugosely on the sides, dorsal line deeply impressed at the base. Elytra considerably wider and nearly four times as long as the thorax, deeply and regularly punctate striate, each with two well-defined transverse punctured foveæ on the disk, one just above, the other just below the middle. Sides nearly parallel for a little more than two-thirds of their length, then converging and denticulate to the apex. Beneath coppery, punctured, covered with greyish hairs at the sides.

Length  $9\frac{1}{2}$  lines; breadth,  $3\frac{1}{2}$  lines.

Hab. Peru.

A very distinct species. It should follow rugicollis, E. S.

# Halccia rugicollis, E.S.

Viridianea, apice cupreo. Thorax lateribus antice valde rotundatis, postice subrectis, disco late canaliculato, lateribus rugosis. Elytra utrinque quadricostata sublævia.

Subtus punctata.

Dull bronzy green, extreme apex of the elytra coppery. Head rugosely punctured, triangularly impressed between the eyes. Thorax, with the sides much rounded in front, and almost straight behind, base slightly bisinuate; surface largely and remotely punctured, sides rugose, disk with a deeply impressed dorsal line, the impression widest at the base and very shallow in the middle, near each posterior angle is the indication of a small rugose fovea. Elytra finely and remotely punctured, very little wider than the thorax, and about four times as long, about as wide across the middle as at the shoulders, and thence gradually narrowing to the apex, posterior margin and apex denticulate, the latter somewhat rounded, each elytron with four raised, rounded lines. Apex coppery. Beneath and legs bronzy, punctured, covered with scattered grey hairs.

Length, 8 lines; breadth, 23 lines.

Hab. Brazil.

Should follow ventralis, L. & G.

#### Halecia costata, E. S.

Obscure viridiænea, purpureo micans. Thorax lineâ dorsali valde impressâ et utrinque lineâ punctulatâ modice impressâ. Elytris utrinque sutura lineisque quatuor lævi-

bus valde elevatis. Subtus aureo-viridis.

Very dark bronzy green, with purplish reflections. Scutellum golden green. Beneath golden green. Head punctured, impressed between the eyes. Thorax deeply punctured, with a deep, wide, dorsal line, and an impressed closely punctured line on each side, about midway between it and the margin. Sides rounded, base slightly bisinuate. Elytra irregularly and rather finely punctured, each with the suture, and four longitudinal lines much raised and smooth, lateral margins denticulate posteriorly. Beneath and legs punctured.

Length, 10 lines; breadth 3½ lines.

Hab. Brazils?

This species should follow rugosipennis, L. & G., which it resembles in the form and style of its thorax.

# Haleeia picticeps, E. S.

Caput viride, antice cupreo-maculatum, vertice purpureo notatà. Thorax pupureo-fuscus, splendens, lineis tribus impressis viridibus. Elytra purpureo-fusca, utrinque sutura, macula semicirculari basali, macula prope medium, maculisque duabus inter illam et apicem, impressis,

viridibus. Subtus viridis, punctata.

Head green, punctured, with a narrow longitudinal impression in front, with a purple spot on the vertex, and a copperv spot in the depression between the eves. Thorax shining, purple brown, finely punctured, with the dorsal line very deeply and widely, and a line on each side near the margin, narrowly, impressed and bright green; the lateral impressions are very closely punctured, the lateral margins themselves are also very narrowly green. Scutellum green. Elytra punctate striate, of the same colour as the thorax, each with the suture, a curved impression, (broad at each end and narrow in the middle, starting from the base and turning almost in a semicircle inwards towards the suture) a kidney shaped one just about the middle, a short stripe under the shoulder, and two round spots, midway between the middle and the apex, bright green and closely punctured. Sides denticulate posteriorly. Beneath and legs bright green, punctured.

Length, 6 lines; breadth, 23 lines.

Hab. Amazons.

Allied to 10-impressa. Chev., which it should follow.

#### Halecia Batesii, E. S.

Læte eupreofusca, thoracis lineâ dorsali lateribusque viridibus. Elytris lineâ abbreviatâ suturali, utrinque vittâ ab humero ad medium extensâ, ibique angulatâ, maculis duabus post medium, lineâque apicali, impressis, viridibus. Subtus viridis, punctata.

Bright coppery brown, with purple reflections. Sides of the face above the mouth, dorsal line and sides of the thorax, scutellum, and a short line on the suture of the elytra below it, a line on each elytron, extending from the base, just above the shoulder, to the centre of the disk about midway between the base and apex, where it turns towards the side at an acute angle, two round spots below this, and an apical streak, impressed and shining green. Beneath and legs punctured.

Hab. Ega, Amazons.

Should follow trisulcata, L. & G.

I have named this beautiful species after its discoverer, Mr. H. W. Bates.

# Halecia cyanco-notata, E. S.

Læte æneofusca. Thorax punctatus, lineâ dorsali irregulari subelevata ad basin impressâ. Elytra punctato striata, utrinque post medium maculis duabus rotundatis vittaque apicali cyaneis ornata. Subtus obscure ænea, pedibus cyaneis.

Bronzy brown, shining. Elytra each with two round spots (one just about the middle, the other midway between it and the apex) and a short streak extending from the apex to a little way up the lateral margin, cyaneous; in the specimen before me there is also a slight indication of another spot near the base. Beneath dull bronzy. Legs

cyaneous.

Somewhat the shape of *iridea*, Mann. Head depressed in front very largely punctured. Thorax punctured, with a very slight depression on each side near the anterior margin, a small fovea at the base of the dorsal line and a small impression on the base at each side near the posterior angle, seeming as if it formed part of the basal impression of the elytra. Elytra finely punctured, and punctate striate, with an impression on each side above the shoulder. Posterior margins not denticulate. Apex of each attenuate and ending in a sharp point. Beneath punctured.

Length,  $7\frac{1}{2}$  lines; breadth,  $2\frac{1}{2}$  lines.

Hab. Para. H. W. Bates. Should follow *Batesii*, E. S.

#### Halecia eupriceps, E. S.

Caput cyaneo cupreum, punctatum. Thorax purpureofuscus, valde punctatus, lineâ dorsali impressâ, lateribus utrinque longitudinaliter impressis, impressionibus viridibus, pulvere flavo repletis. Elytris obscure cupreo-fuscis, punctatis et striatis, utrinque impressionibus duabus in-

distinctis notatis. Subtus ænea, pedibus cyaneis.

Head fiery copper colour, deeply punctured and narrowly channelled in front, on each side above the mouth margined Thorax deeply punctured, dull purple brown with coppery tints, anterior margin slightly produced, sides nearly straight, dorsal line impressed; near each lateral margin is a longitudinal green furrow, filled with yellow powdery pubescence. Elytra much wider than the thorax, closely and somewhat rugosely punctured and striated, of a dull coppery brown colour, with purplish tints, each elytron with a longitudinal impression along the suture posteriorly and two somewhat round, very slight, punctured, eneous impressions, one just above, the other just below, the middle, near the margin, these impressions filled with powdery pubescence; sides sinuate above the middle, apex of each attenuate terminating in a single Beneath bronzy, punctured, legs cyaneous.

Length,  $4\frac{1}{2}$  lines; breadth,  $1\frac{3}{4}$  lines. Hab. Ega, Amazons. H. W. Bates.

Shape and figure of Beltii, E. S., which it should precede.

#### Halccia Beltii, E.S.

Læte aureo viridis. Elytra utrinque, humero, apice, maculisque quinque caruleis ornata.

Shape of octopunctata, Fab. Bright golden green with

cyaneous spots on the elytra.

Head excavated in front, rugosely punctured. Thorax shining, punctured, dorsal line narrowly impressed in front, met at the base by a large puncture; sides nearly straight, each with two transverse impressions, one just below the anterior margin, near the angle, the other a little way above the posterior angle, the impressions filled with yellow powdery pubescence; on each side of the dorsal line in front, is a slightly raised cyaneous spot. Elytra golden green, in some places covered with yellow powdery pubescence, considerably wider than the thorax, deeply punctate striate, and punctured between the strice, each with the shoulder, five spots, and the apex cyaneous. The spots are arranged thus—one at the base midway between the

shoulder and the suture, another, an elongate one, just above the middle, close to the suture, the other three in a line from the shoulder to the apex; there is another spot on the lateral margin below the middle. Hind margins of the elytra not denticulate, apex of each with a sharp tooth. Beneath and legs green, punctured.

Length,  $6\frac{1}{2}$  lines; breadth,  $2\frac{1}{2}$  lines. Hab. Chontales, Nicaragua. Should follow *cupriceps*, E. S.

#### Halecia igniventris, E. S.

Æneo viridis, elytris viridibus, cupreo micantibus. Thorace linea dorsali impressa cuprea, lateribus cupreis, postice foveolatis. Elytris utrinque maculis duabus impressis cupreis ornatis. Subtus igneo-cuprea punctata.

Head shining bronzy green, finely punctured, above the mouth fiery copper colour. Thorax bronzy green, with purple and coppery tints, depressed, punctured, the punctures on the disk looking as if they had been driven in sideways from the base; dorsal line impressed especially at the base, coppery; there is a deep fovea near each hind angle; these and the lateral margins are also coppery. Elytra widest behind the middle, dark metallic green with coppery tints, somewhat flat, punctured and punctate striate, each with two small round fiery copper coloured impressions, one placed just above the middle, the other midway between it and the apex; posterior margin very finely denticulate, the denticulations far apart, apices bluntly pointed. Beneath and legs brilliant fiery copper colour, punctured.

Length, 8 lines; breadth, 3 lines.

Hab. Brazils.

A very distinct and beautiful species.

# Pasiphae amazonica, E. S.

Capite thoraceque viridibus, hoc utrinque postice rotunde foveato. Elytris viridi-cyaneis, punctato striatis, utrinque impressionibus minutis duabus viridibus ornatis, marginibus postice denticulatis. Subtus aureo-viridis.

Head and thorax green, disk of the latter with a somewhat cyaneous tint. Elytra dark cyaneous green, each with two small transverse green impressions, one just above, the other just below the middle. Beneath golden green.

Head punctured with a small oval impression in front. Thorax smooth and shining, finely punctured, anterior margin slightly raised, about half as long as the base, sides diverging rapidly till about the middle, then rounded to the base; base slightly bisinuate, with a round impression just above the scutellum, and another larger one on each side above the posterior angle. Elytra punctate striate, the punctures somewhat elongate in appearance, and far apart, some of the interstices slightly raised, each elytron with two transverse punctured green impressions, one just above, the other just below the middle, the upper one nearest the suture; posterior margins denticulate. Beneath punctured, sides of the abdomen slightly hairy.

Length,  $7\frac{1}{2}$  lines; breadth,  $2\frac{3}{4}$  lines. Hab. Ega. H. W. Bates.

#### Pasiphae vitticollis, E. S.

Caput viride punctatum. Thorax, depressus punctatus, viridis, lineâ utrinque cyaneâ, lineâ dorsali postice valde impressa, lateribus utrinque postice foveolatis. Elytra cyaneo-nigra maculâ basali suturali, et utrinque maculis quatuor minutis, impressis, aureo-viridibus ornata. Subtus viridis.

Head largely punctured, green, narrowly and longitudiinally impressed in front. Thorax flattened, green, with a cvaneous vitta on each side; sides diverging rather rapidly in front, then slightly rounded to the posterior angles; base slightly bisinuate; surface punctured, remotely on the disk, more closely on the sides; dorsal line narrowly impressed in front, deeply and widely behind; near each posterior angle is a deep round impression. Elytra cyaneous black, shining, with slight indications of raised lines, very finely punctured, the punctures arranged in lines, with an elongate common sutural spot, an impressed round spot on the disk above the middle, two others placed side by side just below the middle, and a fourth midway between these and the apex, but nearer the lateral margin, golden green and punctured; posterior margin denticulate. Beneath green, punctured, apex cyaneous.

Length, 8 lines; breadth, 3 lines.

Hab. St. Paulo, Amazons. H. W. Bates, Esq.

Descriptions of four new Asiatic Butterflies: by A. G. Butler, F.L.S.

#### Tanaccia Robertsii, n. sp.

3. Wings above pale olive-brown, apical half pearly-white, bounded just beyond end of cell by an irregular blackish undulated line; a second zigzag line across centre of disc, interrupted on lower discoidal interspace of primaries; a series of submarginal hastate black markings; margin rather broadly pale brown; ring-like characters at base as usual, blackish; body brown: underside much paler, the brown area altered to pale ochraceous; the black lunated lines of disc broken up into spots, the hastate markings only sharply defined at their apices; basal markings as above, but more sharply defined os secondaries; body pale ochraceous: expanse of wings, 2 inches, 6 lines.

Ayerpanas, Malacca (H. Roberts).

Most nearly allied to *T. Supercilia*, Butler, but smaller, with the entire externo-discal area of all the wings pearly-whitish, and the hastate submarginal markings distinctly separated from one another as in *T. Violaria*.

# Nepheronia compacta, n. sp.

Wings above pale bluish-green; the nervures sepia-brown; primaries with costa and outer margin broadly sepia-brown; secondaries with costal and inner margins nearly white; outer margin broadly sepia-brown; body sepia-brown, the thorax clothed with greenish-grey hairs; wings below pearly-greenish; the costal and median nervures of primaries blackish: body snowy-white, the abdomen speckled with dark brown scales at the sides: expanse of wings, 2 inches, 9 lines.

Central India(H. Roberts).

Allied to N. Valeria of Cramer, but more like N. Ceylanica of Felder, on the upper-surface: in form it agrees better with N. Jobaa of Boisduval; but the costal margin of primaries is comparatively shorter.

#### Zemeros albipunctata, n. sp.

Similar in form and colours to Z. Flegyas, excepting that it is rather darker, that there are six decreasing well-defined white spots in primaries forming an inner submarginal series, and that none of the black spots on basal area above or below are white-pupilled: expanse of wings, 1 inch, 7 lines.

Ayerpanas, Malacca (H. Roberts).

A constant and well-marked species: we have an allied species in the British Museum from Borneo.

# $Ypthima\ megalomma,\ n.\ sp.$

Wings above grey-brown, primaries with a very large oblique subapical black ocellus, bipupillated with plumbageous, and encircled by a stramineous iris; secondaries with a large subanal ocellus, similar to that of primaries, but only about one-third the size and unipupillate; body grey-brown; wings below brown, densely hatched with white; primaries with ocellus of upper-surface, but larger and clearer, also a punctiform ocellus upon first median interspace; secondaries with a discal series of very indistinct pale ochraceous ocelli between the nervures: expanse of wings, 2 inches, 2 lines.

Shanghai (W. B. Pryer). B.M.

Mr. Pryer only took one example of this species; it is chiefly remarkable for the enormous size of the occllus of primaries, which gives it somewhat the aspect of a *Callerchia*.

Descriptions of new Species of Australian Cetoniidæ: by OLIVER E. JANSON.

# Hemipharis torrida, n. sp.

♀. Castanea, fere opaca, capite thoraceque subtilissime punctatis, clypeo profunde emarginato, marginibus elevatis, tibiis intermediis et posticis muticis. Long. 14 lin., lat. 8 lin.

Castaneous, sub-opaque, owing to its surface being very densely covered with minute punctures visible only under a lens.

Head finely and remotely punctured, clypeus deeply

emarginate in front, the margins elevated.

Therax with the posterior lobe produced and semicircularly emarginate above the scutellum, very faintly and remotely punctured.

Scutcllum faintly punctate at the base.

Elytra finely and remotely punctured, the punctures very faint at the base, but distinct and arranged in rows on the apical two thirds, the sutural row and the one nearest the margin most distinct, apex strigose, the suture depressed behind the scutellum, but elevated posteriorly and terminating in an acute point at the apex.

Pygidium acuminate, finely transversely strigose.

Abdomen beneath remotely punctured at the sides, smooth in the centre; mesosternal process long, flat; femora and intermediate and posterior tibiae with a fringe of short black hairs on their inner margin, anterior tibiae armed externally with two very acute teeth, the others simple.

N. W. Australia (Nicol Bay). Coll. Sharp, Higgins.

Closely allied to *H. castawa*, O. Jans., but differs in its broader and more convex form, the finer and sparser punctuation of its head and thorax, its unarmed intermediate and posterior tibiae, and in the absence on the penultimate abdominal segment of the peculiar punctuation which characterises the female of that species. Its colour, form, more acutely margined clypeus, the broad emargination of the posterior lobe of its thorax and sparse punctuation will serve to distinguish it from *H. atripennis*, Macl.

H. castanca and atripennis, when examined under a lens, present a similar minute punctuation, but while in H. torrida this punctuation is sufficiently dense to impart a dull appearance to the surface, in H. castanca it is coarser and less dense,—hence the insect is slightly shining, and in H. atripennis it is so exceedingly minute and sparse as not in the least to subdue its polish.

# Diaphonia Digglesii, n. sp. Plate VII., fig. 1.

§. Breviter ovata, nigra, thorace castaneo, tenuiter nigro marginato, elytris nitidis, caeruleo tinctis, clypeo subquadrato, antice late emarginato, capite thoraceque dupliciter punctatis, fere opacis, scutello magno, acuminato, nitido, elytris grosse profundeque subseriatim punctatis, nitidis. Long. 16 lin., lat. 9 lin.

Broadly ovate, black, elytra with a blue tint especially conspicuous in the punctures, thorax castaneous, narrowly

margined with black.

Head nearly opaque, with numerous deep punctures, the interstices very thickly and minutely punctured, clypeus subquadrate, shallowly emarginate in front, rounded at the sides.

Thorax somewhat thickly strewn with large deep punctures, the interstices very densely and minutely punctured, causing the surface to appear almost opaque, posterior margin trisinuate.

Scutellum very shining, large, triangular, its apex acuminate, faintly punctured, with a few large irregularly

disposed punctures.

Elytra shining, with the suture depressed, covered with very large, deep, confluent punctures, disposed in irregular rows on the disc, sutural interstice thickly and minutely punctate, with a few large punctures very sparingly distributed on the basal two thirds, but becoming gradually denser towards the apex, humeral callus moderately developed, nearly smooth.

Pyyidium transversely strigose, reddish-brown.

Beneath shining, sparsely punctate at the sides, minutely and thickly punctate in the centre, with a few large irregularly disposed punctures; anterior portions with long black hairs; an ill defined spot near the anterior angle of

the prothorax and the sides of the metathorax broadly reddish brown; mesosternal process not dilated at apex.

Legs punctured and pilose, tibiae and tarsi pitchy; anterior and intermediate tibiae with two acute teeth on their outer edge, posterior tibiae acutely unidentate externally, the tooth situate at about one third from the apex.

Queensland (Maranoa district). Coll. Higgins.

This fine insect appears to be most nearly allied to, although abundantly and conspicuously distinct from,

D. dispar ♀, Newman (Penelope, Newm.).

The specimen described is the sole exponent of the species which I have yet seen, and has been handed to me by Mr. Higgins for description, with the request that I should dedicate it to the gentleman by whom it was presented to him, and to whose zeal our cabinets were originally indebted for numerous novelties indigenous to Queensland, a request which it therefore affords me much pleasure to fulfil.

# Diaphonia lacunosa, n. sp. Plate VII., fig. 3.

Q. Ovata, convexa, nigra, nitida, capite punctato, clypeo lato, rotundato, apice emarginato, thorace grosse crebreque punctato, postice lobato, scutello parce punctato, elytris lacunosis, cyaneo tinctis.

Long. 10 lin., lat. 6 lin.

Black, shining, elytra blue-black, very shining.

Head thickly punctured, clypeus (fig. 3a) broad, rounded at the sides, emarginate in front, lateral margins elevated.

Thorax coarsely and thickly punctured the posterior margin produced and slightly emarginate above the scutellum, anterior margin slightly elevated, smooth.

Scutellum depressed, with a few large irregularly dis-

posed elongate punctures.

Elytra depressed in the region of the scutellum, thickly covered with large somewhat confluent foveae, the interstices here and there assuming irregular longitudinal ridges, a distinct sutural stria, the sutural interstice with scattered oblong punctures.

Pygidium transversely strigose.

Beneath shining, remotely punctured, and sparsely clothed with fulvous pubescence, mesosternal process with a few scattered punctures, short, flat, apex not dilated,

Legs punctured and pubescent, anterior and intermediate tibiae armed externally with two stout teeth, posterior tibiae with a single acute tooth in the centre, apex strongly dilated.

Western Australia. Coll. Janson.

Most nearly allied to *D. metallescens*, White, from which it differs in its more robust and convex form, its broad clypeus, the coarse sculpture of its elytra and in its flat and undilated mesosternal process.

Figure 6 represents the head of *D. metallescens*.

# Diaphonia maura, n. sp. Plate VII., fig. 7.

3. Nigra, nitida, capite sparse punctato, clypeo quadrato, apice vix emarginato, crebre punctato, elytris grosse crebreque punctatis, tibiis brevis extus unidentatis. Long. 64 lin., lat. 4 lin.

Black, shining, underside and femora sparsely clothed

with whitish pubescence.

Head with a few punctures on each side at the base, clypeus quadrate, slightly emarginate in front, the margins slightly elevated, finely and closely punctured.

Thorax somewhat coarsely punctate, the punctures closer

at the sides, centre of disc smooth.

Scutchum convex, depressed at the sides, with a few lateral punctures.

Elytra coarsely punctured, two smooth slightly elevated ridges on the disc, the outer one somewhat obscure, the punctures very large and confluent at the sides, sparsely scattered on the disc and forming a stria next the suture, sutural interstice with a few scattered punctures, suture depressed, apical callus distinct.

Pygidium transversely strigose, its apex with oblong

nunctures

Beneath coarsely punctured at the sides, apex of mesosternal process not dilated, abdomen with a deep longitudinal furrow.

Legs punctured, tibiae short, unidentate externally, the apical spines and the teeth on the anterior tibiae very acute.

Western Australia. Coll. Sharp.

Closely allied to *D. rugosa*, Schaum, but differs from it in being entirely black, slighly narrower, and in the quad-

rate form of its clypeus (fig. 7) which in D. rugosa (fig. 8)

is dilated at the apex.

From D. hirticeps, Macl., (var. nigrans, Macl.) it may be at once distinguished by its very different form and sculpture.

Diaphonia obliquata, Westw. Plate VII., fig. 4. よ.

§. Schizorhina obliquata, Westw., Arcana Entom. I.,
p. 103, pl. 28, fig. 1 (1842).

8. Schizorhina occilata, Macl., Trans. Ent. Soc. N. S.

Wales, I., p. 16 (1863).

This species must not be confounded with *D. cucnemis*, notwithstanding that Burmeister misled doubtless by the similarity of coloration, has, (Handb. III., p. 799), cited it as the female of that species, a very distinct form, of which both the sexes are now well known.

# Explanation of Plate VII.

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Fig. 1. Diaphonia Digglesii.
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- " 2. " vicina (ante p. 138).
- " 3. " lacunosa, fig. 3a., head of ditto.
- ., 4. ,, obliquata ♂.
- ,, 5. Eupoccila pullata (ante p. 140).
- " 6. Head of Diaphonia metallescens.
- " 7. " maura.
- " 8. " ruyosa.

Descriptions of new Lepidoptera: by A. G. Butler, F.L.S.

#### GENUS DIADEMA.

# Diadema Philippensis, n. sp.

- δ. Wings above dark chocolate brown, primaries similar to D. Bolina δ, but postmedian white band distinctly quadrifid, less broadly surrounded with purple; subapical spot bifid, discal points obsolescent; secondaries with a large circular central purple patch, without any white centre: fringe white varied; body as in D. Bolina; wings below rather paler; primaries nearly as in D. Bolina δ, but with postmedian white band unsullied; discal spots smaller, submarginal lunated spots dusky; secondaries with large white costal spot; a nebulous squamose central transverse whitish streak; a bifid subanal blackish-edged white spot on abdominal margin; six internervular discal white dots; two squamose submarginal interrupted lunulate series of subochraceous spots; fringe white-varied; body as in D. Bolina: expanse, 3 inches, 1 line.
- \$\times\$. Similar to \$D\$. Alcmene \$\times\$, excepting that the postmedian band of primaries is distinctly quinquefid, lilacine irrorated with white, or entirely white, that the subapical spot touches the costal nervure, is large, trifid, and edged with lilacine; that the discal spots are larger, the submarginal spots on all the wings smaller and less distinct, and that there is no trace of tawny on them; secondaries with more or less distinct central blue spot; wings below uniform olive-brown: markings arranged as in \$D\$. Alcmene but all clear creamy white; the postmedian band of primaries distinct and well marked as in \$D\$. Auge \$\times\$, the transverse nebulous postmedian band of secondaries broader than in \$D\$. Alcmene.

Philippines (Cuming). Three specimens. B.M.

#### GENUS CYNTHIA.

# Cynthia Celebensis, n. sp.

3. Above bright tawny, form of C. asela of Moore, but primaries rather more falcate; markings generally similar

to those of *C. crota* with the following exceptions:—primaries with central transverse series of strigulæ nearly straight, as in *C. deione*; discal lumules obsolescent; discosubmarginal blackish line distinctly and acutely lunated; secondaries with three (instead of one) subapical, and two distinct subanal ocelli; disco-submarginal blackish line nearer to margin and more angulated; wings below coloured almost as in *C. crota*, but with differences in the form of the transverse lines as on the upper-surface; body clear ochraceous: expanse, 4 inches, 5 lines.

Menado, Celebes (Madame Ida Pfeiffer). B.M.

#### GENUS TERACOLUS.

# Teracolus chrysomelis, n. sp.

¿3. Wings above bright golden orange, primaries with a diffused creamy-white streak along costa and outer margin; apex broadly grey-brown; nervures black on disc; basal half of costa greenish-grey; secondaries with costal edge and anal half creamy-white; nervures terminating in a few brown scales; body greenish-grey; wings below bright cream-coloured, primaries with interno basal half goldenorange; apex pale subochraceous; abdominal margin of secondaries whitish; body whitish: expanse, 1 inch, 6 lines.

Aden (Whitely). B.M.
Allied to T. Halimede of Klug, but very distinct.

Revision of the Homopterous genera Cosmoscarta and Phymatostetha, with descriptions of new species: by ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

### PLATE VIII.

The Genus Cercopis of Walker (nec Fabricius) has been very rightly divided by Dr. Stal into the two groups Cosmoscarta and Phymatostetha, characterized at a glance by the form of the thorax. The following is a revised list of the species at present known to science.

## GENUS COSMOSCARTA. Stal.

## O 1 C tricolor

Cercopis tricolor, St. Fargeau and Serville, Enc. Méth. X., p. 604 (1827); Burmeister, Hand. Ent. H., 1, p. 124, n. 1 (1835).

Java. B.M.

## O 2. C. Siamensis, n. sp., fig. 1.

Allied to C. tricolor, but in the form of the thorax more like C. divisa. Head and thorax, basi-costal third of corium, and basal fourth of clavus reddish testaceous: wings pale fuscous, the basi-costal veins and base reddish; abdomen above and below blue-black; pectus and legs piceous, tibiæ of hind pair of legs armed with a strong rspine. Length 18 mill.; expanse of tegmina 42. Cambodia (Mouhot). Two specimens. B.M.

var. Entire basal third of tegmina reddish testaceous. Laos (Mouhot). Two specimens. B.M.

# 3. C. basinotuta, n. sp., fig 2.

Form of C. tricolor; differs chiefly in having the tegmina crossed at base by a patch of six red spots (that on the clavus being more or less bifid) instead of the pale testaceous band; and in the narrower and interrupted red bands margining the segments on dorsum of abdomen.

Length 21 mill.; expanse of tegmina 47.

Saráwak (Wallace). Five specimens. B.M.

This is certainly distinct from *C. tricolor*, with which, however, it was formerly associated in our collection.

## O 4. C. fuscipennis.

\*\*Cereopis fuscipennis, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 6 (1827).

Cercopis plana, Walker, List Homopt. Ins. III., p. 653,

n. 10 (1851).

Java and Penang. B.M.

# 5. C. nigripennis.

Cercopis nigripennis, Fabricius, Syst. Rhyng., p. 90, n. 8 (1803).

Cosmoscarta nigripennis, Stal, Hemipt. Fabric., p. 11, n. 2 (1869).

\*\*Cercopis fulvicollis, Walker, List Homopt. Ins. III., p. 660. n. 36 (1851).

This is quite distinct from the C. nigripeanis of Mr. Walker's list.

Java, B.M.

## 6. C. megamera, n. sp., fig. 3.

Cereopis nigripennis, Walker (nec Fabric.) List. Homopt. Ins. III., p. 653, n. 11 (1851).

Form and general coloration of *C. fuscipennis* (*C. plana*, Wlk.), but at once distinguished by its much greater size, black legs, the narrower reddish costal edge, and less pronounced basal reddish diffusion on tegmina; the colour of the thorax and head also vary from piceous to castaneous and bright testaceous. Length 16-19 mill.; expanse of tegmina 39-47.

Silhet; Penang; Laos (Mouhot); Hong Kong (Bowring).

Fifteen specimens. B.M.

# <sup>8</sup>7. C. rufimargo.

Oereopis rufimargo, Walker, Journ. Linn. Soc. vol. X., p. 277, n. 293 (1867).

Makian, Celebes (Wallace). Type. B.M.

## 0 8. C. funeralis, n. sp., fig. 4.

Form of  $^{\circ}C$ , fuscipennis, but thorax with a distinct central ridge; head and thorax dark castaneous; scutellum piceous; dorsum of abdomen reddish-orange; tegmina piceous, almost black; wings fuscous; pectus black; venter and legs red; segments transversely banded and laterally spotted with black; proximal extremities of femora blackish. Length 20 mill.; expanse of tegmina 41.

India. Type. B.M.

### 9. C. Wallacci, n. sp., fig. 5.

Form of C. tricolor; less coarsely rugulose; ocelli very large; head, thorax, and tegmina reddish piceous, covered with testaceous pubescence; costa and base of tegmina (especially the veins) rufescent; wings fuscous red at base; abdomen and legs red; venter blackish in the centre. Length 15 mill.; expanse of tegmina 33.

Dorey (Wallace). Type. B.M.

## ≥ 10. C. flaccida, n. sp., fig. 6.

Form of preceding species; head testaceous; thorax dull pale testaceous obsoletely spotted with dusky; centre of front margin dark castaneous with a large black impressed spot on each side; scutellum, abdomen, pectus and legs dark chocolate brown; tegmina dull reddish-brown; wings pale brown. Length 15 mill.: expanse of tegmina 37.

Java. Type. B.M.

### <sup> ↑</sup> 11. C. costalis.

Cercopis costalis, Walker, List Homopt. Ins. III., p. 651, n. 2 (1851).

Philippines (Cuming). Type. B.M.

o Possibly a variety, but more probably a local form of *C. theora* of White,

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### 12. C. theora.

Cercopis theora, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (Cuming). Type. B.M.

## <sup>□</sup> 13. C. proserpina.

Cercopis proscrpina, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (Cuming). Type. B.M.

If this be considered a mere variety of *C. theora*, all idea of separating species by pattern must be given up at once.

## 6 14. C. plutonica, n. sp., fig. 7.

Allied to *C. proserpina*. Head and thorax dirty testaceous; scutellum black, piccous behind; abdomen greybrown, becoming somewhat testaceous towards anus; pectus and venter black; femora and coxæ of legs blackish piceous; tibiæ and tarsi dark testaceous, golden pubescent; tegmina black; costal margin and apex dull fulvous; base and a basi-subcostal pyriform streak; an irregular transverse trimacular band crossing first third of tegmina, a subcostal spot at end of second third, and the veins on second third testaceous; wings fuscous, costa lutescent, base rufescent. Length 17 mill; expanse of tegmina 44.

Corea (Arthur Adams). Type. B.M.

Very like *C. proscrpina*, but smaller, the tegmina differently marked, the clavus, instead of being entirely bright fulvous, has an oval spot (the third of the transverse series) in its centre.

## 15. ° C. Daphne.

Cercopis Daphne, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 147, n. 5 (1865).

Manilla (Stal).

Seems allied to *C. proscrpina*, but, according to Stal, very nearly allied to *C. Charon*:

### 16. C. Charon.

Cercopis Charon, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (Cuming); Saráwak (Wallace). Type. B.M. Allied to, but smaller and narrower than C. riridans of Guérin; the hemelytra duller in colour, with costal margin less arched.

### <sup>1</sup> 17. C. viridans.

Cercopis rividans, Guérin in Bélanger's Voyage Ind. Or. Atlas, pl. 3, figs. 7, 7a (1834).

\*Cercopis latissima, Walker, List Homopt. Ins. III., p.

655, n. 20 (1851).

Java. B.M.

### D 18. C. rugulosa.

\*\*Cercopis rugulosa, Walker, Journ. Linn. Soc. Zool., vol. I., p. 95, n. 54 (1857).

Mt. Ophir (Wallace). Type. B.M.

## ≥ 19. C. rufipes.

Cosmoscarta rufipes, Stal. Hemipt. Ins. Phil. in Öfvers. Kongl. Vetensk. Akad. Förh., p. 719, n. 4 (1870).

Philippines (Stal). Allied to C. Charon.

## 6 20. C. rutilans, n. sp., fig. 8.

Head, legs, pectus, venter, and tegmina piceous; thorax shining black with dark castaneous margin; scutellum and dorsum of abdomen piceous, with violet metallic shot; wings hyaline, slightly fuscescent, more particularly at costa and abdominal margin. Length 14 mill.; expanse of tegmina 32.

Saráwak (*Wallace*). Type. B.M. Allied to *C. rugulosa* and *C. cyanciventris*.

# <sup>©</sup> 21. C. cyaneiventris.

Cercopis cyancicentris, Walker, List Homopt. Ins. III., p. 661, n. 37 (1851). Java. Type. B.M.

### € 22. C. Malaya.

Cercopis Malaya, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 147, n. 7 (1865).

Malaeca (Stal).

Seems to approach *C. xanthorhina* in markings, but said to be more nearly allied to *C. cyanciventris*.

## ∇23. C. vilis, n. sp., fig. 9.

Very close to *C. divisa*, much smaller, the apical third of tegmina not brown; the basal spots less numerous\*, interrupted, and of a bright orange colour; costal margin dark castaneous; dorsum of abdomen red; venter red, transversely banded with black; legs fulvous, femora of second and third pairs blackish; wings slightly fuscescent. Length 13 mill.; expanse of tegmina 32.

Dorey (Wallace). Type. B.M.

### ○ 24. C. consequens, n. sp., fig. 10.

Allied to *C. vilis*. Head, thorax, pectus, scutellum, dorsum, and venter of abdomen black; abdomen with the segments at the sides and on venter narrowly margined with reddish; anus red; legs red; tegmina piecous, crossed near the base by three orange spots, one subcostal, subovate; one subtriangular trifid, immediately below it; the third subovate, on margin of clavus; costal edge dark castaneous; base slightly rufescent; wings fuscescent, red at base. Length 14 mill.; expanse of tegmina 36.

New Guinea (Wallace). Type. B.M.

## © 25. C. ferociens, n. sp., fig. 11.

Allied to the preceding; from which it differs in its longer and paler tegmina with two scarlet spots near base, one subcostal, the other on clavus; the scutellum paler and more elongate; tibiae of first and second pairs of legs and

<sup>\*</sup> In C. divisa, they form a transverse band as in C. tricolor.

femora of third pair piceous. Length 16 mill.; expanse of tegmina 39.

Mysol (Wallace). Type. B.M.

This species in some respects approaches C. eyens.

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\* Cereopis divisa, Walker, Journ. Linn. Soc., vol. X., p. 279, n. 299 (1867).

New Guinea (Wallace). Type. B.M.

## 27. C. Australis, n. sp., fig. 12.

Cercopis Urvillei, Walker (nec. St. Fargeau), List Homopt.

Ins. Suppl., p. 170 (1858).

Differs from *C. Urvillei* in the purplish black dorsum of abdomen, the blacker thorax and the orange area of tegmina being confined to the basal third and without any indication of a transverse brown band. Length 20 mill.; expanse of tegmina 35.

Australia, and local form Dorey (Wallace). B.M.

Specimens from Dorey are of a darker colour and have the outline of the orange area of tegmina undulated.

### U 28. C. xanthorhina.

<sup>©</sup> Cercopis xanthorhina, Boisduval, Voy. de l'Astrolabe, Ent., p. 618; pl. 10, fig. 10 (1832—35).

Dorey (Wallace). B.M.

Allied to *C. Urvillei*. Speaking of the hemelytra M. Boisduval says—" On voit encore au milieu de chaque élytre, prés du bord latéral, un petit point rouge allongé presque nul." This spot is absent in the figure: it occurs on one of our specimens.

## ○ 29. C. Urvillei.

<sup>6</sup> Cercopis Urvillei, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 3 (1827); Guérin, Icon. Règne Anim. Ins., pl. 59, fig. 8 (1829—1844).

Cercopis nasalis, Walker, Journ. Linn. Soc., vol. X., p.

283, n. 311 (1867).

Offak (St. Fargeau); Aru (Wallace). B.M.

The transverse black bar crossing the orange basal half of the hemelytra is but imperfectly indicated in the figure by Guérin.

### ♦ 30. C. rubrifera.

Cercopis rubrifera, Walker, Journ. Linn. Soc., vol. X, p. 283, n. 309 (1867).

Aru (Wallace). B.M.,

Nearly allied to *C. Urvillei*, from which it may be distinguished by the carmine basal half of the hemelytra, its angular outer edge, more complete transverse black bar, and blackened nervures; the abdomen is also bright red.

## ○ 31. C. ferveseens, fig. 13.

Nearly allied to *C. inexacta*; differs in the greater width of the thorax; the jet-black colour of the vertex of head and the thorax, the black scutellum, the blacker tegmina and the much larger scarlet spots towards base of tegmina. Length 16 mill.; expanse of tegmina 42.

Menado (Wallace). Two specimens. B.M.

Evidently a local representative of  ${}^{\circ}C$ . inexacta from Makian; and somewhat allied to C. ferociens.

### <sup>^</sup> 32. C. inexacta.

*Cercopis inecacta*, Walker, Journ. Linn. Soc., vol. X., p. 280, n. 301 (1867).

Makian and Macassar (Wallace). Type. B.M.

Walker gives the locality as Tondano, but the type has a ticket bearing the abbreviation "Mak."

### ' 33. C. sexmaculata.

Cosmoscarta sexmaculata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 719, n. 5 (1870).

Philippines (Stal).

### 34. C. incanescens, n. sp., figs. 14, 14a.

Cercopis undulifera (nomen bis lectum), Walker, Journ. Linn. Soc. vol. X., p. 276, n. 291 (1867). New Guinea (Wallace). Type. B.M.

The abdomen above purplish black; wings piceous. These characters are not noticed in Mr. Walker's description.

## ### 35. C. tetraspila.

Cercopis tetraspila, Walker, Journ. Linn. Soc., vol. X., p. 277, n. 292 (1867).

Ternate (Wallace). B.M.

## ♥36. C. sequens.

°Cercopis sequens, Walker, Journ. Linn. Soc., vol. X., p. 285, n. 316 (1867).

New Guinea (Wallace). Type. B.M.

## 37. C. basistriya.

Cereopis basistriga, Walker, Journ. Linn. Soc., vol. X., p. 280, n. 302 (1867).

Mysol (Wallace). Type. B.M.

As in other instances, Mr. Walker has given Morty, instead of Mysol, as the habitat of the species.

## o 38. C. maculifascia.

\*\*Cercopis maculifascia, Walker, Journ. Linn. Soc., vol. X., p. 279, n. 298 (1867).

Mysol [not Morty] (Wallace). Type. B.M. .

# 5 39. C. zonata, n. sp., fig. 15.

Cercopis decisa (nomen bis lectum), Walker, Journ. Linn. Soc., vol. X., p. 278, n. 296 (1867).

Mysol [not Morty] (Wallace). Two specimens. B.M. Basal half of tegmina in type castaneous; wings fuscescent; abdomen above glossy black, pectus black, thorax sometimes black.

# 40. C. perstrigata, n. sp., fig. 16.

Head castaneous, vertex piceous; thorax black, testaceous pubescent, with castaneous margin; scutellum piceous, paler behind: abdomen black; pectus dark olivaceous;

legs, femora piceous, tibiæ castaneous, tarsi testaceous; tegmina piceous with central transverse irregular interrupted testaceous band; wings fuscescent. Length 17 mill.; expanse of tegmina 44.

New Guinea (Wallace). Type. B.M.

Allied to C, zonata and C, conveya.

### • 41. C. convexu.

Cercopis convexa, Walker, Journ. Linn. Soc., vol. X., p. 278, n. 297 (1867).

New Guinea (Wallace). Type. B.M.

### 42. C. horrifica, n. sp., fig. 17.

Cercopis unifascia (nomen bis lectum), Walker, Journ. Linn. Soc., vol. X., p. 278, n. 295 (1867).

New Guinea. Type. B.M.

Wings fuscous (character not mentioned by Mr. Walker).

### 0 43. C. sulcata.

Cercopis sulcata, Walker, Journ. Linn. Soc., vol. X., p. 281, n. 304 (1867).

Tondano (Wallace). Type. B.M.

Allied to *U. Urvillei*, but at once distinguishable by its black head. Attached to the type I found the (? Ms.) name *U. balteata*, Walker.

## $\bigcirc$ 44. C. pulchella, n. sp.

Allied to C. sulcata and C. heros. Head, thorax, and pectus shining black; abdomen, legs, and tegmina scarlet; the latter with a blackish costal spot just before the middle of the margin; apical third dark piecous, inner edge undulated. Length 10 mill.; expanse of tegmina 24.

Laos (Mouhot). Type. B.M.

## <sup>0</sup> 45. C. heros.

Cercopis heros, Fabricius, Syst. Rhyng., p. 89, n. 3 (1803).
Cosmoscarta heros, Stal, Hemipt. Fabric., p. 11, n. 1 (1869).

<sup>©</sup>Cercopis abdominalis, Walker, List Homopt. Ins. III., p. 654, n. 18 (1851).

Hong Kong (Bowring); China (Lay). B.M.

## 46. C. chrysomelæna, n. sp.

Nearly allied to *C. heros*. Thorax distinctly wider, purplish black; legs with the exception of the terminal tarsal joints entirely orange; abdomen orange, venter transversely banded with black; tegmina black, with basal third, and a regular curved band at end of second third, orange; wings fuscescent, with base slightly orange. Length 10 mill.; expanse of tegmina 29.

Shanghai (Fortune) Laos (Mouhot). B.M.

The Siamese example is larger than the Chinese and has the tarsi completely orange.

## 0 47. C. discrepans.

Cercopis discrepens, Walker, Journ. Linn. Soc. Zool., vol. I., p. 95, n. 57 (1857).

Cercopis obtusa, Walker, Journ. Linn. Soc. X., p. 287, n. 325 (1867).

Timor and Singapore (Wullace). Type. B.M.

### <sup>△</sup>48. C. egens.

Cercopis egens, Walker, List Homopt. Ins. Suppl., p. 171 (1858).

India; N. India (Hooker). Type. B.M.

var. fascia coccinea distincta, paululum angustiore. Siam (Mouhot), Penang and India (Bowring). B.M.

## F 49. C. ducens.

Cereopis ducens, Walker, List Homopt. Ins. III., p. 655, n. 22 (1851); Stal, Ann. Soc. Ent. France, 4, Sér. V., p. 188 (1865).

Silhet. Type. B.M.

### <sup>∈</sup> 50. C. concisa.

Cercopis concisa, Walker, Journ. Linn. Soc., vol. X., p. 286, n. 321 (1867).

Tondano and Macassar (Wallace). Type. B.M.

#### <sup>o</sup> 51. C. bivittata.

Cercopis bivittata, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 4 (1827).

Cercopis flavifascia, Walker, List Homopt. Ins. III., p. 654, n. 16 (1851).

Java. B.M.

### © 52. C. feralis, n. sp.

Allied to C. bivittata; larger, broader, not æneous, with narrower bands; head, thorax, pectus, abdomen, legs, and tegmina shining black; the latter crossed by two narrow pale testaceous bands (their edges irregular), dividing the tegmina into three nearly equal parts; wings fuscescent, black at base. Length 20 mill.; expanse of tegmina 48. Saráwak (Wallace). Type. B.M.

### 53. C. callizona, n. sp.

\*\* Cercopis semicineta (nomen bis lectum) Walker, Journ. Linn. Soc., vol. X., p. 285, n. 317 (1867).

Makian and Macassar (Wallace). Type. B.M.

### , 54. C. laticineta.

\*\*Cereopis laticineta, Walker, Journ. Linn. Soc., vol. X., p. 285, n. 318 (1867).

Batchian (Wallace). Type. B.M.

## 55. C. amabilis.

Cercopis amabilis, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 146, n. 4 (1865).

New Guinea (Stul).

Seems allied to U. laticineta of Walker.

### 56. C. angulifera.

Cereopis angulifera, Walker, Journ. Linn. Soc., vol. X., p. 286, n. 319 (1867).
Batchian (Wallace). Type. B.M.

Bateman (" attace). 19pc. 19.11.

## 9 57. C. intermedia.

Cercopis intermedia, Walker, Journ. Linn. Soc., vol. X., p. 277, n. 294 (1867).
Batchian (Wallace). Type. B.M.

## 58. C. Lydia.

\(\textit{Cereopis Lydia}\), Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 149, n. 12 (1865).

E. India. B.M.

A small species, allied to C. angulifera.

### √ 59. C. circe.

Cercopis circe, Stal, Öfvers. Kongl. Vetensk. Akad. Förh.,
 p. 145 (1865).
 Cercopis biangulata, Walker, Journ. Linn. Soc. X., p. 280,

n. 303 (1867).

Tondano and Macassar (Wallace). B.M.

Allied to C. perspicillaris and to C. neva, but with the hemelytra elongated as in C. rufimargo and allies.

## © 60. C. delineata.

Cercopis delineata, Walker, Journ. Linn. Soc. Zool., vol. I., p. 165, n. 132 (1857).

Saráwak (Wallacc). Type. B.M.

### 、61. C. trigona.

↑ Cercopis trigona, Walker, List Homopt. Ins. III., p. 660, n. 34 (1851).

Cercopis amplicollis, Walker, l. c. Suppl., p. 175 (1858). N. India and Hong Kong. Types. B.M.

## 62 C exultans

\*\*Cercopis evultans, Walker, List Homopt. Ins. Suppl., p. 171 (1858).

N. China (Fortune). Type. B.M.

Allied to U. bispecularis and U. trigona.

## v 63. C. decisa.

Cereopis decisa, Walker, List Homopt. Ins. Suppl., p. 175 (1858).

Darjeeling. Type. B.M.

A second species is described under this name in the Journal of the Linnaean Society X., p. 278, n. 296 (1867).

### 64. C. undata.

Cerropis undata, Walker, List Homopt. Ins. III., p. 659, n. 33 (1851); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 148, n. 8 (1865).

Silhet (Stainsforth); N. India. Type. B.M.

## 5. C. flexifascia.

Cercopis flexifascia, Walker, Journ. Linn. Soc., vol. X., p. 286, n. 320 (1867).

var. Cercopis subápicalis, Walker, 1. c., p. 287, n. 322 (1867).

Sumatra (Wallace). Types. B.M.

In the variety *C. subapicalis* the basal and submedian transverse bands of the hemelytra are obsolete.

### 66. C. bimacula.

Cercopis bimacula, Walker, List Homopt. Ins. III., p. 656, n. 25 (1851).

Cercopis sumtuosa, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 249, n. 1 (1854).

Hong Kong (Bowring). Type. B.M.

### 5 67. C. bispecularis.

<sup>©</sup>Cerconis bispecularis, Walker, List Homopt. Ins. III., p. 656, n. 24 (1851).

Almeral (Warwick); Penang (Bowring). Type. B.M.

#### 5 68 C irresoluta

Ocception Control of the Control of 85 (1858).

Java. Type, B.M.

More nearly allied to C. bispecularis than to any other species.

#### 69 C dorsimacula.

Cercopis dorsimacula, Walker, List Homopt. Ins. III., p. 658, n. 31 (1851).

<sup>♦</sup> Cercopis quadrimaculata, Walker, l. c., p. 661, n. 38 (1851).

N. Bengal, N. India, Cahar. Types. B.M.

Mr. Walker describes a second species under the same name (List, p. 663, n. 41); he however subsequently describes the latter as a new species under the name of © C. tomentosa (Journ. Linn. Soc. X., p. 284).

## 5 70. C. fictilis, n. sp.

Closely allied to C. dorsimacula, but differs in its usually smaller size, narrower thorax, duller and more uniform colouring, and much smaller and more regularly uniform black spots. Length 12 mill.: expanse of tegmina 32.

Penang and India (Bowring); "Silhet, E. Indies" [sic]

(Bowring).В.М.

This is probably the southern representative of C. dorsimacula; the single example, supposed to be from Silhet, was most probably taken with the other Indian specimens.

### 71. C. bifasciata.

<sup>6</sup> Cereopis bifasciata, Guérin, Belanger's Voy., p. 502 (1834): Cercopis septempunctata, Walker, List Homopt. Ins. III., p. 659, n. 32 (1851).

Cercopis fulva, Walker, l. c., p. 663, n. 43 (1851). Java (Guérin); Hab. —? Types. B.M.

## ○ 72. C. guttata.

\*Cercopis guttata, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 7 (1825).

Cerropis sèmicineta, Walker, List Homopt. Ins. III., p. 657, n. 28 (1851).

Java. Type. B.M.

#### 73. C. concolor.

 Cercopis concolor, Walker, List Homopt. Ins. III., p. 661, n. 36 (1851).

\*\* Cercopis proxima, Walker, l. c., p. 664, n. 44 (1851).

Java. Types. B.M.

Very close to the preceding species.

#### 74. C. dorsalis.

\*\*Cerropis dorsalis, Walker, List Homopt. Ins. III., p. 658, n. 30 (1851).

~ Cercopis connexa, Walker, l. c., p. 663, n. 42 (1851).

\*\*Cercopis ramosa, Walker, Ins. Saunders. Homopt., p. 85 (1858).

N. India. Types. B.M.

### № 75. C. lacerata.

Cereopis lacerata, Walker, Journ. Linn. Soc., vol. X., p. 287, n. 324 (1867).

Timor (Wallace). Type. B.M.

Allied to C. dorsalis and C. obtusa.

## <sup>3</sup> 76. C. rotundata.,

Cercopis rotundata, Walker, List Homopt. Ins. Suppl., p. 174 (1858); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 149, n. 11 (1865).

Laos, Siam (Mouhot); E. India. Type. B.M.

### 77. C. nigroguttata.

Cosmoscarta nigroguttata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 720, n. 8 (1870). Philippines (Stal). Nearly allied to <sup>§</sup>C. rotundata\*, the croceous area of the tegmina occupying scarcely more than half the tegmina, black spots smaller and more numerous, the third apical part of the clavus and the greater part of the dorsum of abdomen black.

#### 78. C. semimaculata.

Cosmoscurta seminaculata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 719, n. 6 (1870).

Philippines (Stal).

Allied to C. rotundata.

### v 79. C. semipardalis.

Cercopis semipardalis, Walker, Journ. Linn. Soc. Zool., vol. I., p. 165, n. 131 (1857).
Saráwak (Wullace). Type. B.M.

#### e 80. C. liturata.

\*\*Cercopis liturata, Walker, Journ. Linn. Soc., vol. X., p. 287, n. 323 (1867).

Flores (Wallace). Type. B.M.

Allied to C. rotundata and C. lateralis.

### s 81. C. discolor.

 $\sim$  Cercopis discolor, Boisduval, Voy. de l'Astrolabe, Ent., p. 619; pl. 10, fig. 11 (1832—1835).

Dorey (Wallace). B.M.

### 82. C. tetragona.

Cercopis tetragona, Walker, Journ. Linn. Soc., vol. X., p. 284, n. 314 (1867).

Aru (Wallace). Type. B.M.

<sup>\*</sup> Three out of the four examples of this species in the National Collection have the anterior transverse series of spots on the coriumcon fluent, as in Dr. Stal's Philippine examples.

### © 83. C. Papuensis, n. sp.

Closely allied to C. tetragona. Head, thorax, pectus and scutellum fulvous, becoming scarlet at the margins; abdomen black; legs fulvous, tibie and tarsi fuscescent; tegmina, basal half scarlet, a large black spot near the base and three in a transverse series at end of basal third; apical half black; wings fuscescent, base scarlet. Length 14 mill.; expanse of tegmina 35.

New Guinea (Wallace). Two specimens. B.M.

### ' 84. C. lateralis.

Cercopis lateralis, Walker, Journ. Linn. Soc., vol. X., p. 285, n. 315 (1867).

Mysol [not Morty] (Wallace). Type. B.M.

Allied to C. discolor.

## o 85. C. pellucida, n. sp.

Head black; clypeus and thorax dull castaneous; scutellum, pectus, and legs testaceous; abdomen bright castaneous; tegmina pale testaceous, hyaline to end of second third, base and a transverse band at end of second third fulvous; apical third piceous; wings slightly fuscescent, fulvous at base. Length 11 mill.; expanse of tegmina 29.

Laos (Mouhot). Type. B.M.

### ♦ 86. C. Timorensis, n. sp.

Head, thorax, pectus, legs, scutellum, and tegmina bright fulvous; abdomen, a diffused patch on each side of pectus, and two transverse irregular bands across tegmina, piecous; apical third of tegmina brownish testaceous. Length 15 mill.; expanse of tegmina 31.

Timor (Wallace). Two specimens. B.M.

Allied to C. pellucida, but more nearly approaching  $\mathcal{O}C$ . nexa in pattern.

## 6 87. C. octopunctata.

\*\*Cercopis octopunctata, Amyot and Serville, Hist. Nat. Hemipt., p. 559, n. 2; pl. 10, fig. 6 (1843).

Cercopis dorsalis (nomen bis lectum), Walker, Journ. Linn. Soc., X., p. 283, n. 310 (1867).

Java (Amyot); Sumatra & var. Borneo (Wallace). B.M.

### № 88. C. carinata.

Cosmoscarta carinata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 720, n. 11 (1870).

Philippines (Stal).

Seems allied to C. octopunctata and C. submaculata.

### b 89. C. unifascia.

Cercopis unifascia, Walker, Journ. Linn. Soc. Zool., vol. I., p. 95, n. 56 (1857).

Singapore (Wallace). Type. B.M.

Allied to C. octopunctata.

## © 90. C. submaculata.

\*Cercopis submaculata
Walker, List Homopt. Ins. III., p. 657, n. 27 (1851); var. l. c. Suppl., p. 172 (1858); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 149, n. 10 (1865). Java. Type. B.M.

Nearly allied to C octopunctata, but with the scutellum black, and the spots of the second series forming a waved

line across the hemelytra.

## o 91. C. brevistriga.

Cercopis brevistriga, Wałker, Journ. Linn. Soc. X., p. 282, n. 307 (1867).

Tondano (Wallace). Type. B.M.

## ¬ 92. C. impressa.

Flores (Wallace). Type. B.M.

## 93. C. Lapeyrousci.

Cereopis Lapeyrousei, Boisduval, Voy. de l'Astrolabe, Ent. p. 617; pl. 10, fig. 9 (1832—35). Vanikoro ? Closely allied to C. impressa.

### ¬ 94. C. nexa.

"Cereopis nexa, Walker, Journ. Linn. Soc., vol. X., p. 281, n. 306 (1867).

Flores (Wallace), Type. B.M. Nearly allied to C. impressa.

## § 95. C. inaurata, n. sp.

Closely allied to  $\overline{C}$ . semilurida; but differs in the uniform pale golden brown colour of the tegmina, the basal two-thirds of clavus, a large transverse irregular spot at end of first third, and the usual two spots at end of second third of tegmina, testaceous; base red. Length 15 mill.; expanse of tegmina 37.

Morty (Wallace). Type. B.M.

Evidently a local representative of *U. spectabilis*.

### ⋄ 96. C. semilurida.

\*\*Cercopis semilurida, Walker, Journ. Linn. Soc., vol. X., p. 282, n. 308 (1867).

Batchian and Gilolo (Wallace). Type. B.M.

The specimens mentioned by Mr. Walker as coming from Morty and Kaisa are referable to two distinct species; that from Ternate I have not come across.

## ⋄ 97. C. miranda, n. sp.

Nearly allied to *C. semilurida*, but smaller: abdomen of a more uniform red colour; tegmina with basal two-thirds piecous; the base and two transverse spots crossing the corium and clavus, bright orange; apical third pale fuscous, the costa of a deeper tint; wings slightly fuscescent, red at base. Length 14 mill.; expanse of tegmina 33.

Kaisa (*Wallace*). Two specimens. B.M.

## ≈98. C. spectabilis.

Cereopis spectabilis, Burmeister, Nov. Act. Phys. Med. Nat. Cur. XVI., Suppl., p. 304; pl. 41, fig. 8 (1833).

Cercopis vanthomelæna, White, Ann. & Mag. Nat. Hist. XV., p. 35 (1845).

Manilla (Burmeister); Phillipines (Cuming). B.M.

Our specimens are a little faded, otherwise they differ in no respect from Burmeister's figure; Stal, however, considers them to be distinct species.

#### 99. C. inclusa.

\* Cercopis inclusa, Walker, List Homopt. Ins. III., p. 658,
 n. 29 (1851); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 147, n. 6 (1865).

Ceylon. Type. B.M.

### 100. C. pallida.

- Cercopis pallida, Walker, List. Homopt. Ins. III., p. 657, n. 26 (1851).

Cercopis ferruginea, Walker, l. c. p. 660, n. 35 (1851). India. Types. B.M.

# © 101. C. elegantula, n. sp.

Allied to U. pallida; head and thorax metallic greenish black; abdomen purplish black, anus castaneous; pectus and femora reddish-orange, tibiae and tarsi brownish testaceous; tegmina piceous, veins of basal half testaceous; base and a transverse band at end of second third reddish-orange; wings slightly fuscescent, especially at the margins, base rufescent. Length 8 mill.; expanse of tegmina 20.

India. Type. B.M.

## 102. C. bipars.

\*\*Cerropis bipars, Walker, List Homopt. Ins. Suppl., p. 172 (1858).

Java (Bowring). Type. B.M.

### o 103, U, semirosca.

Cercopis semirosca, Walker, Journ. Linn. Soc. I., p. 165, n. 133 (1857).

Saráwak (Wallace). Type. B.M.

### 104. C. pictilis.

Cercopis pictilis, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 249, n. 2 (1854).

E. India (Stal).

Seems allied to *C. signifera* of Walker from the description, in which case it would have to be referred to *Phymatostetha*.

Cercopis transversa of Walker (List Homopt. Ins. p. 1151, n. 49) and C. subdolens of Walker (Linn. Journ. vol. I., p. 165, n. 135) appear to be species of Tricephora; C. Boitardi of Montrouzier is an Aphrophora; C. Strongii of Westwood (E. Ind. in gum animè) seems better placed in Sphenorhina.

#### GENUS PHYMATOSTETHA. Stal.

## 1. P. perspicillaris.

Cercopis perspicillaris, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (Cuming). Type. B.M.

Stocal var. O'Cercopis varia, Walker, Journ. Linn. Soc. X., p. 284, n. 313 (1867).

Tondano and Macassar (Wallace). Type. B.M.

Only differs from the Philippine form in having the two black spots on apical third of hemelytra united to one another and to the margins; thus leaving only a red spot at apex.

## 🗢 2. P. punctifascia.

<sup>©</sup> Cercopis punctifascia, Walker, Journ. Linn. Soc. vol. X., p. 288, n. 326 (1867).

Batchian (Wallace). Type. B.M.

## ○ 3. P. undulifera.

Cercopis undulifera, Walker, Journ. Linn. Soc. Zool. vol. I., p. 165, n. 134 (1857).
Saráwak (Wallace). Type. B.M.

#### 4. P. dislocata.

Cercopis dislocata, Walker, Journ. Linn. Soc. Zool. vol. I, p. 95, n. 55 (1857).

Singapore (Wallace). Type. B.M.

5. P. Semele.

7 Tomaspis Semele, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 151, n. 4 (1865). ✓ Siam, Laos. B.M.

## © 6. P. inconspicuu, n. sp.

Head above and thorax blue-black, rugulose, testaceous pubescent; head below, scutellum, abdomen and legs testaceous; thorax with lateral anterior margins and two central spots, fulvous; scutellum crossed by a black spot, venter crossed by regular series of black spots; pectus black; tegmina piceous, base irregularly testaceous, two irregular transverse bands, dividing them into three equal parts, the inner one interrupted; wings slightly fuscescent. Length 9 mill; expanse of tegmina 21.

Cevlon. Two specimens. B.M.

## <sup>O</sup> 7. P. Stalii, n. sp.

 Tomaspis circumducta Stal (nec Walker), Öfvers. Kongl. Vetensk, Akad. Förh., p. 150, n. 3 (1865).

N. India. B.M.

Dr. Stal\_unfortunately publishes his belief that this is Walker's C. circumducta (Öfvers. Vetensk. p. 721 note, 1870); however, it is so similar to that species in pattern that Mr. Walker accidentally placed the name under it in the cabinet, leaving "C. costalis" under the type.

# 8. P. triscriuta, n. sp.

Allied to P. Stalii, larger, with broader tegmina, the transverse bands of which are each broken up into three spots; head red-brown, becoming redder in front, clypeus scarlet; thorax, pectus and legs piceous, the lateral anterior margins of the thorax scarlet; scutellum black, with scarlet margin; abdomen shining purple black: tegmina piceous, the costal margin, a streak on the outer basal edge of clavus, and two transverse series, each of three spots, searlet, apical margin bright testaceous; wings slightly fuscescent, base scarlet. Length, 14 mill; expanse of tegmina 37.

Laos (Mouhot). Two specimens. B.M.

## 9. P. circumducta.

© Cercopis costalis (nomen bis lectum) Walker, List Homopt. Ins. III., p. 664, n. 45 (1851).

Cercopis circumducta, Walker, l. c. Suppl. p. 175 (1858).
 Malabar. Type. B.M.

## ⇒ 10. P. Borneensis, n. sp.

Tomaspis costalis, Stal (nec Walker), Öfvers. Kongl. Vetensk. Akad. Förh., p. 151, n. 5 (1865).

Malacca (Stal); Saráwak (Wallace). Two specimens. B.M.

Allied to *P. Stalii, circumducta, and hilaris*; it differs from the two first in having a conspicuous orange red spot close to apex of tegmina; in other respects it comes nearest to *P. circumducta*.

## v 11. P. hilaris.

ο Cercopis hilaris, Walker, List Homopt. Ins. III., p. 665, n. 46 (1851),

Malabar. Type. B.M.

I do not agree with Dr. Stal in considering this identical with C. circumducta of Walker.

### 12. P. ? Lessonii.

Eurymela Lessonii, Boisduval. Voy. de l'Astrolabe, Ent., p. 620, pl. 10, fig. 12 (1832-35).

Amboina.

### $\circ$ 13. *P. mactans.*

Cerropis mactans, White, Ann. & Mag. Nat. Hist. XV., p. 36 (1845).

Philippines (Cuming). Type. B.M.

<sup>t</sup> Certainly not  $\widehat{\mathcal{P}}$ . perspicillaris of White, although considered identical by Dr. Stal (Öfvers. Vetensk. Akad. Forh., p. 721, 1870).

### . 14. P. Cynthia.

\*\*Tomaspis Cynthia, Stal, Öfvers. Kongl. Vetensk. Akad. Forh., p. 150, n. 1 (1865).

Bourou.

Appears to be allied to P. mactans & P. stellata.

### b 15. P. stellata.

Oercopis stellata, Guérin, Icon. Règne Anim. Texte, p. 368 (1829-44).

• Cercopis dorsimacula (nomen bis lectum), Walker, List Homopt. Ins. p. 663, n. 41 (1851).

Cereopis tomentosa, Walker, Journ. Linn. Soc. X., p. 284, n. 312 (1867).

Malacca and Sumatra (Wallace); Malabar. (Walker's types.) B.M.

## <sup>6</sup> 16. P. Nympha.

O Tomaspis Nympha, Stal, Öfvers. Kongl. Vetensk. Akad. Forh., p. 150, n. 2 (1865).

Malacca (Stal).

According to Stal, "closely allied to C. stellata of Guérin."

## 5 17. P. dorsivitta.

O Cercopis dorsivitta, Walker, List Homopt. Ins. III., p. 662, n. 39 (1851).

var. Cercopis humeralis, Walker, l. c. n. 40 (1851).

Almorah (Warwick); Silhet (Stainsforth). Types. B.M.

## ∪ 18. P. pudica.

\*Cereopis pudica, Walker, Ins. Saunders. Homopt., p. 84 (1858).

Silhet. Type. B.M.

Allied to P. mactans & P. signifera.

### □ 19. P. signifera.

Cercopis signifera, Walker, List Homopt. Ins. III., p. 655,
n. 21 (1851); Stal, Öfvers. Kongl. Vetensk. Akad. Förh.,
p. 151, n. 6 (1865).
Silhet & N. India. Type. B.M.

#### ○ 20. P. dubitabilis.

 $^{\odot}\mathit{Cercopis}$   $\mathit{dubitabilis},$  Walker, List Homopt. Ins. Suppl., p.  $_{1/173}$  (1858).

E India. Type. B.M.

Allied to C. signifera, but the hemelytra red not yellow at base, and with the markings somewhat differently arranged.

### $\forall$ 21. P. pudens.

Cercopis pudens, Walker, List Homopt. Ins. Suppl., p. 174 (1858); Stal, Öfvers. Kongl. Vetensk. Akad. Forh., p. 151, n. 7 (1865).

Æ. India. Type. B.M.

### 22. P. basiclava.

 $\it Cercopis\ basiclara,\ Walker,\ List\ Homopt.\ Ins.\ Suppl.,\ p.\ 172\ (1858).$ 

Tòmaspis Larinia, Stal, Öfvers. Kongl. Vetensk. Akad. Forh., p. 152, n. 8 (1865).

Æ. India. Type. B.M.

## Abstract of Dr. Mayr's Monograph on the Synergi of the Oak-galls: by Francis Walker.

The history of the inhabitants of galls is less understood than that of other parasitic Hymenoptera, their proceedings hid from sight and their mutual intercourse difficult to But Dr. Mayr is now investigating them thoroughly with regard to the oak-galls of middle Europe. and a translation of some of his published observations may be a help to the knowledge of the British species. The difference between galls in close contiguity is remarkable, and it is not known whether this difference is effected by the peculiar egg laying of each gall-making species, and by the fluid which accompanies that proceeding. following notice is limited to the Synergi, which establish their families in the galls, and thereby interfere more or less with the originators of them, though in some galls the Synergi have an outer life in the superficial part, and the gall-makers have an inner life in the central part. In Dr. Mayr's descriptions he indicates here and there much difference in size and colouring, and even in sculpture in one species, and thus the identification of some kinds is diffi-More references can be made to his monograph when the British species are better known; of these three species S. Reinhardi, S. facialis, and S. Tscheki may be frequently seen, the first in the Devon gall, the second in the oak apple, the third in the oak spangle. It will be seen that in some cases one kind of Syncrous inhabits several different galls, but it has not been ascertained that its character is thereby modified. The three following genera are closely allied and form one group in the family.

## Synergus.

All the face streaked fan-like. Antenne of the male 15-jointed, of the female 14-jointed; third joint in the male more or less dilated, in two species tunid. Furrows of the front generally reaching to the side-ocelli, seldom short; prothorax without longitudinal furrows in the

middle; scutellum with two deep cavities at the base; first abdominal segment ring-shaped, with a forked longitudinal streak; the large segment consisting of two wholly united segments. Radial areolet fully closed.

### Sapholytus.

Face, prothorax, scutellum, and abdomen as in *Synergus*. Antennæ 14-15-jointed in the male, 13-jointed in the female; third joint dilated in the male. Furrows of the front very short. Radial areolet open by the foreborder which the radial vein does not reach.

### Ceroptres.

Face only feebly streaked on the sides; a straight keel from each socket of the antenna to the border of the mouth. Antennae in the nale 15-jointed, with the third joint not dilated nor thickened; in the female 12-jointed, somewhat thickened towards the tips. Front without furrows. Prothorax in the middle with two hindward converging longitudinal furrows. Scutellum at the base without any, or with two slight cavities. First abdominal segment ring-shaped, smooth; the large segment has a transverse suture before the middle, and thus forms two segments, of which the first is more or less hairy. Radial arcolet closed.

#### SYNOPSIS OF THE SPECIES OF SYNERGUS.

- A. Second abdominal segment broadly and fully punctured on the whole hind border. Larvæ in the galls during winter.
  - a. Second joint of the antennæ shorter than thick in the male, as long as thick in the female. Head luteous; front and vertex black. Eye borders yellow. melanopus.
  - b. Second joint of the antennæ distinctly longer than thick.
    \* Hind legs black; sutures and tarsi yellow. Face
    - black.
    - † Mesothorax roughly and transversely wrinkled,

especially roughly punctate wrinkled on the side angles. Face with a very conspicuously strong longitudinal middle keel. Frontal furrows ending by the side-ocelli. Wing veins stout, mostly dark brown.

Reinhardi.

†† Mesothorax with far apart sharply concise wrinkles, between which the surface is smooth and shining. Face with a slight middle longitudinal keel, or with none. Frontal furrows usually disappearing before they reach the ocelli. Wing veins pale yellow.

\*\* Hind legs yellow, chestnut red, or somewhat

brownish.

† Radial areolet distinctly more than twice as long as broad. Wing veins pale vellow.

† Head and thorax wholly black. Hind femora ferruginous, or blackish-brown. Front with rough wrinkle like punctures.

† Head luteous, with some black spots between the ocelli. Front finely coriaceous, wrinkled with scattered punctures. Sides of the prothorax and mesothorax in the male almost always, in the female occasionally luteous. Femora of the male yellow, of the female brown.

\*\*Jewipes\*\*.

†† Radial areolet not twice as long as broad.

Hind femora black or brown. Wing veins stout, brown. Face of the male wholly, or at least below yellow, of the female wholly black, or yellow below. Upper side of the first joint of the antennae in the male mostly with brown or black marks.

Hayncanus.

‡‡ Hind femora chestnut red or brown. Wing veins very pale. Face black. First joint of the antennæ yellow. ruficornis.

 Second abdominal segment not punctured, or only so on the hind border.

 Third joint of the antennæ in the male thickened or dilated towards the tip, not swollen.

\* Mesothorax with transverse sharp more or less undulating keels, and with smooth or almost smooth intervals. Furrows of the front most often not extending to the ocelli. + Antennæ of the usual thickness.

Hind border of the second abdominal segment not much curved in the female.

§ Apical joints of the antennæ often slightly brownish in the female. variabilis.

\$\$ Apical half of the antenna dark brown in the female. apicalis.

tt Hind border of the second abdominal segment much curved in the female. rotundiventris.

++ Antennæ thickened. incrassatus

\*\* Mesothorax transversely wrinkled or coriaceous. Furrows of the front always extending to the ocelli.

+ Hind femora in the female at least dark coloured.

<sup>‡</sup> Body deep black.

SS Wings with brown veins.

Body not deep block Wings with more or less pale veins. Tscheki. tristis

Abdomen black.

Wings with extremely pale veins. pallicornis, \*\* Wings with testaceous veins. albines.

\*\*\* Wings with brown veins.

Second joint of the antennæ a little longer than thick 0. in the male, distinctly so in the female. nerrosus.

oo. Second joint of the antennæ as long as thick or a little thicker in the male, as long as thick or a little longer in the female. vulgaris.

§§ Abdomen ferruginous or castaneous.

†† Femora and tibiæ pale in both sexes.

Head reddish testaceous. facialis.

±± Head black. radiatus. Third joint of the antennæ much swollen in the

male. \* Third joint of the antenna excavated on the outer

side in the male. thaumaecra. \* Third joint of the antennæ only slightly emarginate on the outer side in the female. physocerus.

#### SYNOPSIS OF THE SPECIES OF SAPHOLYTUS.

Antennæ 15-jointed in the male.

connatus.

varius.

Antennæ 14-jointed in the male.

- Third joint of the antennae twice as long as the fourth.

  Haimi.
- b. Third joint of the antennae not twice as long as the fourth. undulatus.

#### CEROPTRES.

- A. Face with two acute longitudinal keels. arator
- B. Face with two obtuse and sometimes indistinct longitudinal keels. Cerri.

List of the Flies whose Galls are inhabited by the preceding Species.

### . Synergus melanopus.

Cynips argentea. Cynips polycera.

" hungarica. " caliciformis.

"tinctoria. "amblycera.

" Kollari. " caput-medusæ.

" lignicola. " calicis.

" glutinosa. " gemmæ. " coriaria. " clementinæ.

### 2. Synergus Reinhardi.

Cynips argentea. Cynips caliciformis.

" tinctoria. " caput-medusæ.

"Kollari. "calicis. "glutinosa.

-

### Synergus evanescens.

Cynips calicis. Aphilothrix gemmæ. Andricus multiplicatus.

### 4. Synergus pallidipennis.

Cynips tinctoria. Cynips coriaria. " lignicola. " conifica.

,,

Synergus flavipes.Dryocosmus macroptera,

6. Synergus Hayneanus.

Cynips tinetoria.

Cynips Kollari.

" lignicola.

7. Synergus ruficornis. Aphilothrix globuli,

8. Synergus variabilis.

Cynips cerricola.

Synophrus politus. Andricus nitidus.

", circinans.

Dryocosmus cerriphilus.

"macroptera.

" grossulariæ. Neuroterus lanuginosus.

9. Synergus apicalis.

Cynips lignicola.
" conglomerata.

Andricus noduli.
Aphilothrix gemmæ.

" amblycera.

Synergus rotundiventris.
 Dryocosmus macroptera.

11. Synergus incrassatus.

Aphilothrix radicis.
corticis.

Aphilothrix Sieboldi.

ticis.

12. Synergus Tscheki.

Dryophanta scutellaris.

Neuroterus lenticularis. , fumipennis.

Neuroterus numismatis.

, fumipenni ostrens

13. Synergus pallicornis.

Cynips Hartigi, " argentea. Cynips polycera.
,, caput-medusæ.

" hungarica. " tinctoria. " calicis. Dryophanta folii.

" Kollari. " lignicola. ,, longiventris. ,, divisa. ., agama.

" conglomerata. " glutinosa.

" disticha.

" coriaria.

" cornifex,

#### Synergus albipes. 14

Biorhiza synaspis. Dryophanta agama. disticha.

divisa.

Andricus curvator. Spathegaster baccarum. tricolor. Cynips seminationis.

### 15. Synergus varius. Biorhiza remm

## Synergus nervosus.

Aphilothrix autumnalis. eollaris.

Aphilothrix callidoma.

### Synergus tristis.

Aphilothrix urnæformis.

Neuroterus ostreus.

### 18. Synergus vulgaris.

Cynips tinctoria.

lignicola. glutinosa, caput-medusæ. calicis.

Aphilothrix solitaria. globuli. callidoma. clementina.

urnæformis, glandium.

### 19. Synergus facialis.

Cynips glutinosa.

Aphilothrix gemmæ.

seminationis. Aphilothrix solitaria. albopunctata.

Andricus ramuli. Dryoteras terminalis. Spathegaster baccarum. tricolor.

curvator.

## Synergus radiatus.

Aphilothrix albopunctata. solitaria.

Andricus ramuli. Spathegaster baccarum.

Andrieus eurvator.

### 21. Synergus thaumacera.

Biorhiza renum. Cynips cerricola, Andricus cydonicæ. Spathegaster tricolor. Trigonaspis megaptera. Andricus singularis. Spathegaster glandiformis. nervosa.

- Synergus physocerus. Biorhiza synaspis.
  - 1. Sapholytus connatus.

Andricus noduli.

Aphilothrix inflator.

Sapholytus Haimi.

Andricus nitidus. Neuroterus lanuginosus. Neuroterus saliens.

- Sapholytus undulatus.
   Cynips cerricola.
  - 1. Ceroptus arator.

Cynips lignicola.

" hungarica. " Kollari. " conglomerata.

" glutinosa. " polycera. .. caliciformis. Cynips galeata.

Andricus noduli.

Dryoteras terminalis. Aphilothrix lucida.

" urnæformis. Spathegaster flosculi. " aprilinus.

2. Ceroptres Cerri.

Cynips cerricola.
Dryocosmus macroptera.
Andricus circulans.

Andricus multiplicatus.

Spathegaster glandiformis.

### Note on the Tachinidæ: by Francis Walker.

Among the Diptera the proceedings of this tribe, each of which passes the whole of its existence, except the latter end, in another living insect, are more interesting than the habits of most other tribes, and a notice of their history. which is comparatively simple and limited, may suitably precede the history of the parasitic Hymenoptera, which is very extensive, and complicated, and difficult to understand. In the Northern Hemisphere their habitation may be divided into three principal regions, in each of which they have passed to and fro; America, Africa, and part of Europe, and Asia including the rest of Europe, and this last region should be especially studied as it includes the British Isles. A survey of the country may give some indications of the track in their flittings and migrations, swift or slow, according to the helps or hindrances which occurred to them. These indications only refer to the last advance through Asia to Europe: darkness hides all knowledge of their earlier transition, and the darkness doubles each time in the endeavour to retrace their preceding passages to and fro, as the change of climate impelled them. After the last glacial epoch twilight reveals part of their course and fancy may represent the rest. They may be believed to have ascended from the tropical regions in south-eastern Asia to northern Asia and thence to Europe and to have established stations; in these some kinds wholly stopped, others stopped in part and proceeded in part, and others wholly proceeded, and thus the geographical distribution was The Diptera in general by their facility of flitting. and of quick increase, and of appropriating various states of plants and animals are likely to be comparatively the first insect population in a country which begins to afford means for subsistence. But the flies here mentioned are in circumstances very different from those of the Muscidae to which they are nearly allied; their progress and prosperity depends on that of other insects, chiefly Lepidoptera, which are their sustainers, or in whose early state their early state

Their migration therefore could has a hidden existence. not have preceded, and most probably succeeded that of the Lepidoptera. The opinions lately published that the character of an insect is modified or established by the particular kind of insect in which it lives may be useful as leading to more investigation of the parasitic flies here noticed. Is each kind of Tachinid generally constant in its parasitism to one kind of Lepidoptera, and if it infects two or more kinds are there two or more races, and are successive generations of one race constant to one Lepidopterous kind for sustenance? If there be a transition from one kind of maintenance to another does the change modify the characters, and does the modification, as has been asserted. become cumulative. Is its instinct in choosing a habitation for its successors derived from its having had the same kind of habitation, and supposing that it can have no access to this habitation, is another dwelling place to which its instinct leads it similar to that which one of its earlier ancestors inhabited, and will its descendants follow its example and select, if opportunity should occur, for the next generation the kind of home in which they were maintained, or, in other words, what are the manifestations of "the law of inheritance" as it is termed? It is well known that the species of this tribe are very numerous and that many of them rarely occur, and that the parasitism of most of them is unknown. In the following list the names of some European Tachinidae and those of their feeders are placed side by side. It will be seen that by far the greater part feed on Lepidoptera, but some kinds are parasites of Coleoptera and Hymenoptera or of other Diptera, and one kind is said to destroy Plusia gamma and Procrustes coriacens.

```
Oevotera bicolor, Oliv. -
                              Pentatoma grisea.
                              Lasiocampa Trifolii.
Echinomyia grossa, L. -
            fera, L. -
                              Lithosia quadra, Aretia
                               aulica, Lymantria monacha,
                               and Trachea piniperda.
Gymnochæta, viridis, Fall.
                              Miana arcuosa.
Plagia trepida, Meig. - -
                              Lophyrus Pini.
Gonia flaviceps, Zett. - -
                              Hadena glauca.
Nemoraeea glabrata, Meig.
                              Trachea piniperda.
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rudis, Fall. -

Nemoraea xanthogastra, Rond.	Sphinx Ligustri.
	Cucullia Verbasci.
ano drinuctulata	Sphinx Ligustri, Saturnia
Fab	Carpini, Cucullia Verbasi.
Epicampocera succineta, Meig.	Saturnia Carpini.
Exorista vulgaris, Fall	Plusia gamma, Procrustes coriaceus.
nomostrino Meia	Clavellaria Amerina.
" nemestrina, Meig	
" lucorum, Meig	Arctia caja, A. villica, A.
	Hebe, Phragmatobia fuli-
	ginosa, Stilpnotia salicis.
	Hypogymna dispar, and
1 1 : 7	Endromis versicolora.
" cheloniæ, Rond	Arctia caja.
" libatrix, Panz	Clisiocampa neustria, Bre-
	pha notha, and Abrostola
	asclepiadis.
" apicalis, Macq	Saturnia Carpini.
" affinis, Fall	Arctia caja, and Saturnia
	Carpini.
" sanguinolenta, Macq.	Cerura vinula.
" gibbicornis, Macq	Odonestis potatoria.
" inclinata, Macq	Vanessa polychloros.
" Aeronyctarum, Macq.	Acronycta Psi.
" Orgyæ, <i>Desv.</i>	Dasychira pudibunda.
" acronita, Desv	Acronycta megacephala.
" cuculliæ, <i>Desv.</i>	Cucullia lychnitis.
" Arion, Desv	Dasychira pudibunda, Or-
	gyia antiqua.
" bombycivora, <i>Desv</i> .	Endromis versicolora.
" grandis, Zett	Arctia caja, Saturnia Carpini.
" pavonise, Zett	Saturnia Carpini.
Meigenia bisignata, Meig	Gymnancyla canella, Atha-
	lia pinarum, Paropsis sex-
	punctata.
Tachina rustica, Meig	Vanessa polychloros, Stilp-
, 0	notia Salicis, Lasiocampa
	Quercus, and Clisiocampa
	neustria.
" doris, <i>Meig.</i>	Pyrameis Cardui.
" agilis, <i>Meig.</i>	Vanessa Io.
" morosa, Meig	Acherontia atropos.
balla Main -	Vanessa Io, Hypogymna
" bona, meng	dispar.
	copeu,

```
Tachina nitidula, Meig. -
                                Saperda populnea.
                                Cnethocampa processionea.
         processionea, Ratz. -
         iliaca, Ratz. -
         ochracea, Ratz. -
         similaris, Ratz. -
                                Tenthredo variegata.
         janitrix, Ratz.
                                Tenthredo frutetorum.
         pinivora, Ratz.
                                Hypogymna dispar.
         larvincola, Ratz.
                                    ,,
         monacha, Ratz. -
         neustriæ, Ratz. -
                                Clisiocampa neustria.
         Hartigii, Ratz.
         evonymella, Ratz.
                                Hyponomenta evonymella.
         gilva, Hart. -
                                Lophyrus pallidus.
         inclusa, Hart. -
         bimaculata, Hart.
         piniariæ, Hart, - -
                                Bupalus piniarius.
   ,,
         crythrostoma, Hart.
                                Sphinx Pinastri.
         inflexa, Bouché -
                                Tenthredo grossulariæ.
Masicera flavoscutellata, Zett.
                                Lophyrus,
                                Smerinthus Populi, Odon-
          pratensis, Meig.
                                       potatoria, and Sa-
                                 estis
                                 turnia Pyri.
         sylvatica, Fall.
                                Saturnia Špini and S. Pyri.
                                Pieris Brassicae, Sphinx
Phorocera concinnata, Meig. -
                                 Pinastri, Enproctis chry-
                                 sorrhea.
                                           and Stilpnotia
                                 Salicis.
          assimilis, Fall.
                                Vanessa
                                          prorsa,
                                                   Saturnia
    ,,
                                 Carpini.
          munda, Meig. -
                                Pieris Brassicae.
    ,,
          lata, Zett. - -
                                Lophyrus Pini.
          ortalidis, Desv.
                                Ortalis stabilis.
    ,,
          orgyiae, Desv. -
                                Dasychira peudibunda.
    11
          cuculliae, Desv.
                                Cucullia Verbasci.
          Bercei, Desr. -
                                Eriogaster processionica.
          pusilla, Desc. -
                                Pieris Rapæ.
    ,,
          Lamberti, Desv.
                                Chrysomela graminis.
Baumhaueria vertiginosa,
                                Arctia caja and A. villica.
  Meig. -
                                Carabus violaceus, C. can-
Frontina austera, Meig.
                                 cellatus, and C. gemmatus.
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Forficula auricularia.

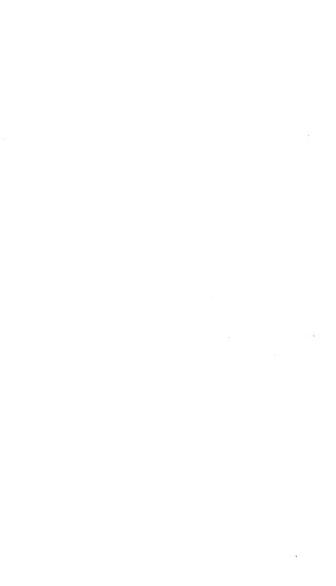
Metopia forficulae, Newm.

Leskia aurea, Fall. Ægeria ichneumoniformis and Æ. cynipiformis. Thryptocera setipennis, Full. Forficula auricularia.

pilipennis, Fall. Retinia buoliana, R. resinana, Hyponomeuta evonymella, and H. liturella.

bicolor, Zett. Lasiocampa Quercus and Scardia mediella.

spinipennis, Meig. Trachea piniperda. Thelaira leucozona, Panz. Arctia caja and Spilosoma lubricepeda.



Descriptions of new species of Diurnal Lepidoptera chiefly from Tropical America: by Herbert Druce, F.L.S., F.Z.S.

## 1. Hesperocharis antipater.

Upperside of both wings pure white; posterior wings very long. Underside of anterior wings white, with the base, nervules and apex speckled with yellowish scales; posterior wings yellowish-white with the nervules dusky. Expanse  $2\frac{3}{8}$  inch.

Hab. Choctum, Vera Paz (Hague). Mus. Salvin and Godman.

This species is nearly allied to *H. Leucaniu*, Boisd., but differs from it in the greatly elongated hind wing, whiter colour, and entire absence of marking on the underside.

#### 2. Eunica amata.

Upperside of anterior wings black, a band of rich purple blue from the base along the costal margin to the apex thence along the hind margin to the anal angle. Posterior wings with a broad submarginal band of purple blue commencing at the apex and extending nearly to the anal angle. Underside of anterior wings brown, lighter at the base and inner margin, apex grey, with two small black spots, one pupilled with white. Posterior wings rich brown with a submarginal band and two spots of dark brown near the base, followed by two irregular transverse bands of the same colour inclosing three black ocelli, irides yellow, pupils, bluish white; the upper ocellus, which is the largest, has two pupils. Expanse 24 inch.

Hab. Costa Rica. Mus. Druce.

On the upperside this species is unlike any other with which I am acquainted, but resembles E. Eurota underneath.

#### 3. Heterochroa Leuceria.

Upperside: Male, dark brown, both wings crossed beyond the middle by a band of orange, darkest on the outer margin, divided into two near the apex of the anterior wing: both wings with the outer margin paler and traversed by two bands of dark brown.

Underside reddish-brown, both wings crossed by the band as above but white, two white marks in the cell of the anterior wing bordered with black, and several whitish indistinct bands close to the base of the posterior wing, a submarginal band of white spots common to both wings. Expanse 2½ inch.

Hab. Valley of the Rio Polochic, Guatemala (Hague).

Mus. Salvin and Godman.

On the upperside this species resembles *H. ctheldu*, Hew., but in form it is like *H. Tracta*, Butl.

#### 4. Diadema Monteironis

Upperside: Male, like *D. Salmucis*, but differs in the following respects, the white band of the anterior wings is very broad, the two white spots near the apex are wanting, and the colour is grey-green instead of blue as in *Salmucis*.

Posterior wings have the white band very broad. Underside pale brown with all the white bands much wider than in *E. Salmaeis*; the base of the posterior wings reddish-brown.

Upperside: Female, brown. Anterior wings crossed about the middle by a broad white band, two streaks of greyish-white on the inner margin. Posterior wings brown at the base crossed by a broad white band the lower half bright chestnut-brown with the outer margin dark brown, the submarginal row of spots very indistinct.

 $\mathfrak{P}$ . Underside the same as the male with all the white bands wider. Expanse  $\mathfrak{F}$ ,  $\mathfrak{F}$ ,  $\mathfrak{F}$  inch.

Hab. ♂, Old Calabar. ♀, Angola (Monteiro).

## 5. Romalcosoma Wardi.

Upperside brown richly glossed with purple. Anterior

wings, the apical half dark brown, crossed by a band of orange, the apex white, the outer margin and the anal

angle of the posterior wings purple.

Underside greenish-white. Anterior wings, the apex and a band white, bordered on the inner margin by a narrow black line, a spot at the end of the cell, three black spots in the cell, the smallest near the base, the others near the middle. Expanse 34 inch.

Hab. Cameroons. Mus. Druce.

The first specimen I received of this species I thought was only a large variety of R. Losinga, Hew.; having since received others I now feel sure it is a distinct species. It differs from R. Losinga in its much greater size, beautiful colouring of the posterior wing on the upperside, and the pale greenish-white of the underside.

## 6. Paphia Beatrix.

Upperside: Male, deep indigo-blue, lighter at the base where it is almost a greyish-blue, a band of three spots of the same colour near the apical angle of the anterior wings. Posterior wings with one tail and several indistinct spots round the outer margin. Underside brown, thickly speckled with black and white scales, a white spot about the middle of the costal margin of the posterior wings and three indistinct white dots between the tail and the anal angle. Expanse  $2\frac{\pi}{2}$  inch.

Hab. Volcano of Chiriqui (Arcé). Mus. Salvin and God-

This species is nearly allied to P. Mæris, Feld.

## 7. Paphia Pedile.

Upperside: Male, brownish-black with the basal third of the anterior wings and the base of the posterior greenish, two spots of green near the apical angle of the anterior wings, the outer margin of the posterior wings thickly speckled with green scales.

Underside rich chestnut-brown, thickly speckled with

white along the costal margin and apical angle of the anterior wings. Posterior wings without tails, a white spot on the costal margin nearest the apex, the abdominal margin thickly speckled with white, and a row of indistinct white spots round the posterior margin. Expanse 2\frac{1}{2} inch.

Hab. Valley of the Rio Polochic, Guatemala. Mus.

Salvin and Godman, and Druce.

### 8. Paphia ambrosia.

Upperside: Male, greenish black with the base of both wings thickly speckled with golden-green scales, a conspicuous band of the same colour near the apical angle of the anterior wings, dentated on the outer margin, which is thickly speckled between the nervures with golden-green scales. Posterior wings with a narrow marginal border of green, with three spots of the same colour between the nervules. Underside rich brown. Anterior wings with a dark spot at the end of the cell, a band of dark brown, bordered on the outer margin with grey scales, crossing from the apex to the middle of the inner margin and joining a pale ochreous patch spotted with brown, the outer margin grevish.

Posterior wings without a tail, speckled with grey on the costal margin, and crossed near the middle by two indistinct bands of brown, a submarginal row of minute white spots.

Expanse 23 inch.

Hab. Veragua, Volcano of Chiriqui (Arcé). Mus. Salvin and Godman.

A very handsome species and quite distinct from any with which I am acquainted.

# 9. Paphia Polyvo.

Upperside: Male, deep indigo-blue, anterior wings with the base, a series of six spots arranged across the apical angle and thence down the outer margin, and the hind margin of the posterior wings greyish-blue, the inner margin chestnut-brown. Underside pale glossy brown, darkest on the outer margin of the anterior wings. Posterior wings without a tail, a dark band crosses from the apical angle of the anterior wing to the cell of the posterior wing where it joins a patch of dark brown from the abdominal margin, thickly streaked with white bands, a large greyish-brown patch on the costal margin close to the apex. The hind margin of the posterior wing thickly speckled with white. Expanse  $2\frac{1}{2}$  inch.

Hab. Rio (Beske). Mus. Druce ex Coll. Kaden.

# 10. Paphia Mora.

Upperside greenish-black. Anterior wings with the basal half dull green, a green spot on the costal margin nearest the apex, and an indistinct spot near the apex on the posterior margin, which is slightly greenish in colour. Posterior wings without a tail; the basal half and the outer margin shot with green; a row of four minute whitish spots extending from the anal angle to near the apex. Underside dark brown, both wings mottled with chestnut-brown, with a few greyish scales along the costal margin of the anterior wings; both wings with a submarginal row of indistinct white spots. Expanse  $2\frac{2}{3}$  inch.

Hab. New Granada. Mus. Salvin and Godman.

## 11. Pyrrhopyga Creon.

Upperside: Male, both wings deep glossy indigo blue, the outer margin of the posterior wings broadly black with a large scarlet spot close to the anal angle. Underside the same as above, but not quite so bright in colour. Expanse 24 inch.

Hab. Calobre, Veragua ( $Arc\ell$ ). Mus. Salvin and Godman. This is a very fine species, not nearly allied to any with which I am acquainted.

## 12. Pyrrhopyga Cydonia.

Upperside: blue-black, the forehead, the palpi and anus orange, the outer margin of the posterior wing dentated; the fringe of both wings white. Underside the same as above. Expanse 2½ inch.

Hab. Eastern slope of the mountains of Oaxaca, Mexico (Fenochio). Mus. Salvin and Godman.

# 13. Pyrrhopyga Creona.

Upperside: Male, brownish-black, anterior wings speckled between the nervures with a number of orange scales, the fringe of both wings bright orange. The back with two longitudinal bands of crimson hair; a tuft of crimson hair at the base of the abdomen; the anus scarlet. Underside bright orange, anterior wings with the base and half the costal margin black, the outer margin dusky; the posterior wings black at the base and broadly black at the abdominal margin; the nervules of both wings black. Expanse  $2\frac{1}{8}$  inch.

Hab, Peru. Mus, Druce.

On the upperside this species is very like *P. Hadassa*, Hew., but strikingly distinct from any known species on the underside.

(To be continued.)

Descriptions of some new Heterocerous Lepidoptera from Australia: by A. G. Butler, F.L.S., F.Z.S., &c.

### FAMILY LIPARIDE.

GENUS DARALA. Walker.

Darala Limonea, n. sp.

3. Wings above lemon-yellow, a postmedian ferruginous transverse line, nearly straight in primaries, slightly curved in secondaries; an ochreous line, angulated in primaries, half way between postmedian line and base; both lines beginning at costa in a plum-coloured nebulous spot; a short angulated ferruginous costal litura near base and a second near apex; an ill-defined undulated transverse plum-coloured discal line outside of and parallel to postmedian line; body lemon-yellow, antenna irrorated with plum-coloured: wings below nearly as above but the ochreous line towards base absent, two brownish ill-defined spots in the cells: body golden-yellow, legs plum-coloured. Expanse of wings 2 inches, 7 lines.

Ψ. Wings above ochreous, basal area from postmedian transverse line pale; postmedian line chocolate-brown, bordered outside with lemon-yellow; dark ochreous line towards base exceedingly ill-defined; discal undulated line slate colour; primaries with a long point at apex; a brown spot within and a second at end of discoidal cell; body pale ochreous, darker towards anus: wings below uniform ochreous; the postmedian and discal undulated lines slate-coloured; internal area of primaries rather pale; two brown spots in cell of secondaries; body dark ochreous, legs with tibiæ and tarsi slate-coloured. Expanse of wings 3 inches, 5 lines.

Rockhampton. Coll. B.M.

Allied to D. inornata, Wlk., but in marking more nearly approaching D. excellens.

## FAMILY CATEPHIDE.

#### GENUS CATEPHIA.

## Catephia ecclesiastica, n. sp.

Closely allied to C. linteola from India, but differs in its much deeper colouring, the primaries varied with bronzyslate colour, the veins of the same colour; central black bars well defined, inner bar partially edged with whitish: apex irrorated with white, a subapical annular whitish marking; secondaries with central band much broader and not extending to inner margin, apical spot much larger; thorax dark slate colour varied with brown: wings below greyish-brown, primaries black on disc, secondaries with disc black; primaries with a postmedian quinquefid welldefined white patch; internervular folds white, interrupted near outer margin by a series of black dots; secondaries with a central well-defined white band broadest on inner margin; internervular folds as in primaries: body whitevbrown, legs grey, palpi blackish. Expanse of wings 2 inches, 4 lines.

Rockhampton.

Only one example of this species came in a rather large collection.

## Catephia dubia, n. sp.

Primaries above scarcely differing from Achara cyllota, pale reddish-brown, darker towards outer and inner margins, with a pale zigzag submarginal line; base blackish; a diamond-shaped blackish spot on interno-median interspace, continued obliquely upwards as two irregular blackish lines; a large costal apical blackish patch; secondaries smoky-brown, paler at base, a white spot at end of cell and an ill-defined dot between cell and inner margin; fringe with a white patch towards apex and a second towards anal angle: thorax dark brown, abdomen grey-brown: wings below almost the same as in A. cyllota, but the pale bands narrower. Expanse of wings 1 inch, 9 lines.

var. Primaries above dark red-brown; blackish patches paler, submarginal line bluish at apex; a broad mealy whitish patch on inner margin, crossed by dark grey lines. Expanse of wings 1 inch, 13 lines.

Rockhampton.

This species although clearly allied to Achara cyllota, A. signivitta and A. cyllaria is undoubtedly related to Catephia amplificans, and the latter is nearly allied to C. linteola which is connected generically with C. alchymista through C. ceclesiastica; if the two genera are lawfully referable to distinct families, I should propose that A. cyllota, A. signivitta, A. cylloria and A. fusifera be transferred from the genus Achara to Catephia.

## FAMILY OPHIUSIDÆ.

#### GENUS OPHIUSA.

Ophiusa constricta, n. sp.

Very similar to *O. properans* of South Africa, but larger, the darker area beyond the central whitish band of primaries less irregular, its outer edge becoming perpendicular near costa, where it is margined with white; the whitish band of secondaries broader and whiter; the margins of all the wings whiter: below all the markings well defined, the transverse lines distinctly undulated. Expanse of wings 2 inches, 1 line.

Rockhampton.

This species will form a little group with O. albivitta, O. stuposa, O. algira, O. properans, O. joviana, O. aehatina, O. expediens, &c., all of which are very similar in the general arrangement of their markings.

## Ophiusa? latizona, n. sp.

Allied to *O. pyrrhargyra*, but with the whole of the thorax golden orange; the fringe of all the wings varied with black; the primaries with the central white band twice as wide; several whitish striolations on basal area: a distinct cuneiform white costal spot beyond the central band; a distinct submarginal series of whitish dots: below with submarginal area less varied with white. Expanse of wings 1 inch, 10 lines.

Queensland (Janson); Lizard Island (Macgillivray). B.M. I have seen a good many examples of this species, chiefly from Queensland; from the shortness of its palpi and other less evident characters, I am inclined to doubt its being a true Ophiusa.

Description of a new species of Blattaria: by A. G. Butler.

In a small collection recently obtained from Rock-hampton, I found two *Blattariæ* new to the cabinet of the British Museum; the first of these proves to be *Polyzosteria bicolor* of Saussure, the second is apparently a new species of *Ellipsidion* allied to *E. reticulatum* and *E. australe*.

# $Ellipsidion\ gracile,\ n.\ sp.$

Ovato-pyriforme; capite nigro, vertice luteo; antennis —? palpis luteis; pronoto elliptico, margine postico subangulato, luteo, nigro bimaculato; meso et metanotis nigris, marginibus posticis anguste luteis; abdominis segmentis supra nigris, cercis supra luteis; elytris fulvis, luteo reticulatis, ad basin et apicem anguste nigris; alis luteis ad apicem anguste nigris; corpus subtus nigrum, abdominis segmentis 1—6 albido lateraliter marginatis, segmentis 1—5 postice albido marginatis; coxis postice luteo marginatis; femoribus nigris, tibiis spinosis fulvis; tarsis nigris. Long. 0,015; cum elytris 0,018.

Rockhampton.

Differs from *E. reticulatum* in its larger and more graceful form, the narrower black apex to the elytra, and the colour of the legs.

Notes on Australasian and North American Trichopterygia; with descriptions of four new species: by the Rev. A. Matthews, M.A., Oxon.

Some time ago Dr. Sharp received an exceedingly interesting collection of Trichopterygia from Mr. Lawson, by whom they had been found chiefly in the neighbourhood of Auckland, in New Zealand, and very kindly forwarded the entire lot to me for examination.

I was much pleased to find among them a large series (72 specimens) of Actinopteryx australis, the species discovered by Mr. Brewer on the banks of the Swan River, in Australia. A large majority of these were females, and so unlike the other sex that at first I was disposed to think that they must belong to a different genus, but a careful examination soon convinced me of my error. In this species the thorax is covered with a very thick and very rough epidermis, and when this had been removed the peculiar and characteristic sculpture of Act. australis was exhibited with equal precision in both forms. the sexes are totally dissimilar. In the male the thorax is very much dilated, and the elytra are narrow and rather straight; in the female the thorax is not wider than the elytra, and the elytra are short and rounded at the sides; the female insect is also considerably smaller than the male, and presents an appearance much resembling Trich, scri-A sexual difference of form is rare cans and its allies. among the Trichopterygia; it is, however, occasionally met with, especially in Ptinellodes and Astatopteryx, and in Act. australis become excessive.

In this collection I also found many specimens of a new species of *Actidium*, and seven of a *Trichopteryx*, which puzzled me extremely; the antennae, legs, and superficial sculpture of all the seven are similar, while in some specimens the thorax is dilated after the manner of *T. atomaria*, and in others more quadrate, resembling in form that of *T. Montandonii*. But I am inclined to consider this variation as sexual, and have included both forms under one species.

### Actidium lineare, sp. nov.

L.c. 4.6 lin. (0.50 m). Lineare, elongatum, valde convexum, nigrum, pube brevi griseâ sat dense vestitum, capite magno, sat acuminato; pronoto parvo, capite nec latiori nec longiori, impressione levi longitudinali ad medium discum, punctisque magnis per totum notato, lateribus vix rotundatis, margine basali fortissime rotundatâ angulis obsoletis; elytris capite atque pronoto plus quam sesqui longioribus, haud latioribus, lateribus fere rectis, apice integro valde rotundato; pedibus atque antennis modicis, læte flavis.

Caput magnum, elongatum, sat acuminatum, punctis profundis fere confluentibus impressum; oculis modicis promi-

nentibus; antennis sat robustis læte flavis.

Pronotum parvum, capite nec latius nec longius, punctis magnis fere confluentibus atque in disco pone medium impressione levissimâ longitudinali utrinque notatum, lateribus fere rectis, leviter marginatis, basi valde rotundato elytrorum humeris incumbenti.

Scutellum parvum triangulari profunde punctatum.

Elytra linearia elongata, capite atque pronoto sesqui longiora, haud latiora, ordinibus transversis irregularibus confertim sat profunde asperata, lateribus fere rectis, leviter marginatis, apice lato, integro, valde rotundato.

Abdomen hand exsertum.

 $\it Pedes$  modici, læte flavi, tibi<br/>is pone media leviter dilatatis, tarsis brevibus.

Subtus piceum, ore coxis atque ventre dilutioribus.

Differt ab A. coarctato statura multo minori, forma lineari, capite elongato acuminato, pronoto minori et multo angustiori, et sculptura leviori et densiori.

Habitat New Zealand, exemplis multis a D. Lawson captis.

# $Trichopteryx\ inconspicua, sp.\ nov.$

L. c. 5-6 lin. (0.60 vel. 0.75 m). Brevis convexa subquadrata, postice parum attenuata, nigra nitida, pilis brevibus griseis parce vestita; capite magno; pronoto in maribus ad basim valde dilatato, tuberculis parvis ordinibus sinuatis dispositis, interstitiisque nitidis, vix reticulatis

ornato, angulis posterioribus acutis, in maribus valde productis; elytris brevibus, in maribus ad apices valde attenuatis, ordinibus sinuatis regulariter et distincte asperatis: pedibus læte flavis; antennis piceis.

Caput magnum latum, in fronte sat productum, nitidum, tuberculis minutis remotisque ornatum; oculis parvis, haud

prominentibus; antennis modicis sat dilute piceis.

Pronotum sat magnum, capite parum longius, multo latius, valde convexum, in maribus ad basim valde dilatatum, tuberculis parvis ordinibus sinuatis regulariter dispositis, interstitiisque nitidissimis indistincte reticulatis ornatum, lateribus rotundatis leviter marginatis, margine basali fere recta, angulis acutis dilutioribus, in maribus valde productis.

Scutellum magnum, latum, triangulare, confertim aspe-

Elytra subquadrata, capite atque pronoto haud longiora, parum angustiora, in maribus postice attenuata, ordinibus regulariter sinuatis confertim haud profunde asperata, suturâ sat elevatâ, apicibus latis, paruin rotundatis, dilutioribus.

Abdomen modice exsertum, segmento apicali dente parvo utringue armato.

Pedes modici, læte flavi, articulo basali tarsorum anteriorum in maribus dilatato.

Subtus nigra, metasterno sat profunde asperato, coxis flavis, ore atque apice ventris piceis.

Differt a T. anthraciná staturá minori, pronoto tuberculis minoribus sed multo densioribus ornato, atque antennis dilutioribus

Habitat New Zealand, exemplis nonnullis a D. Lawson captis.

Femineis est forma magis oblonga, atque pronotum vix ad basim dilatatum.

The two North American species described below were sent to me by my lamented friend Mr. Crotch, unaccompanied by any notice of their capture. They are of the most distinct and interesting description. The *Trichopterys*: is unlike any of its genus; it approaches T. variolosa more than any other species in form, but is distinct from all in its shining glabrous surface and deep black colour.

### Nossidium posthumum, sp. nov.

L. c.  $\frac{a}{15}$  l. (0·75 m). Ovale, valde convexum, nitidum, testaceum, pilis brevibus flavis vestitum; capite atque pronoto nitidissimis, remote punctatis, hoc ad basim latissimo, lateribus late marginatis; elytris ovalibus pronoto haud latioribus, profunde punctatis, fere asperatis; pedibus atque antennis testaceis.

Caput modicum, sat breve, obtuse triangulare, punctis remotis notatum; oculis modicis, vix prominentibus; antennarum articulis duobus basalibus flavis, reliquis diruptis.

Pronotum capite longius et multo latius, ad basim latissimum, lateribus vix rotundatis, late marginatis, glabrum nitidum, levissime et remote punctatum, ad basim haud depressum, margine basali leviter sinuatâ, angulis acutis.

Scutellum parvum, triangulare, punctis quinque triangu-

lariter dispositis in disco notatum.

Elytra ovalia, postice attenuata, ad humeros latissima, capite atque pronoto paulo longiora, haud latiora, ordinibus transversis sinuatis profunde punctata vel asperata, interstitiis glabris nitidissimis, lateribus vix rotundatis, leviter marginatis, apice integro, obtuso.

Pedes modici, flavi.

Subtus totum testaceum.

Differt a N. pilosello staturâ minutâ, formâ angustiori, capite atque pronoto fere glabris, atque elytris multo profundius punctatis.

Habitat Americam septentrionalem, exemplo unico a D.

Crotch transmisso.

## Trichopteryx mærens, sp. nov.

L. c.  $\frac{r_0}{16}$  l. (0·32 m.) Brevis, lata, valde convexa, nitidissima, aterrima, pilis brevibus pallidis sparse vestita; capite magno, brevi; pronoto modico, transverso, ad medium latissimo, glabro, nitidissimo, punctis remotis minutissimis notato, ad basim sat depresso, lateribus modice rotundatis, late marginatis, margine basali rectà, angulis rectis; elytris perbrevibus, valde convexis, ad media latissimis, nitidissimis, vix distincte asperatis; pedibus flavis.

Caput breve, latissimum, glabrum, nitidum, punctis minutis remotis notatum; oculis parvis, haud prominentibus; antennarum articulis duobus basalibus flavis, reliquis diruptis.

Pronotum breve, transversum, valde convexum, capite paulo longius, vix latius, prope medium latissimum, ad basim valde depressum, glabrum, nitidissimum, minutissime et remote punctatum, lateribus modice rotundatis late marginatis, marginibus translucidis, margine basali rectâ, angulis rectis.

Scutellum magnum, latissimum, triangulare, indistincte

asperatum.

Elytra perbrevia, convexissima, capite atque pronoto nec longiora nec latiora, ad media latissima, ad humeros pronoto angustiora, ordinibus transversis indistincte et levissime asperata, interstitiis glabris, nitidissimis; apicibus latissimis, vix rotundatis apicibus extremis flavis.

Abdomen minime exsertum.

Pedes modici, læte flavi, tibiis leviter dilatatis, articulis basalibus tarsorum anteriorum dilatatis.

Subtus tota nigra.

Habitat Americam septentrionalem, exemplo unico a D. Crotch transmisso.

Differt ab omnibus formâ brevi rotundatâ convexissimâ, superficie glabrâ nitidissimâ, et colore aterrimo, species distinctissima, formâ T. variolosæ maxime vicina.



Descriptions of some Japanese Hymenoptera; by Francis Walker, Esq.

Considering the earth without reference to the human race, Asia and Europe may be regarded as one Continent. which surpasses all others in size, and displays in the Northern hemisphere by far the greatest expanse on the surface of the land, and affords the greatest facilities or the fewest obstacles to the migration and diffusion of At each end of this region there is a group of islands—the British Isles on the west and the Japanese Isles on the east; and they mark the extremes of difference in the insect races which inhabit this extent. The distance between the two groups occupies nearly half of the circle of longitude there, and the British Isles are much more contiguous to North America; but the Atlantic is now fixed between them, and it has been supposed that some of the Insect-Fauna which Europe and North America had in common has passed away in the former country by means of change of climate, of elevation, or of aspect in the region, or by the expulsion or extermination of some kinds by other kinds. Previous to making some notes on a few groups of insects in the longitudinal range of Northern Asia and of North America, I have in this communication recorded twenty-four Japanese Hymenoptera, for which I am indebted to Mr. F. Smith, of the British Museum.

#### ICHNEUMONIDAE.

### Ichneumon albidipes,

Male. Black, shining, thickly and very minutely punctured. Antennae slender, much shorter than the body. Areas of the metathorax well defined. Abdomen subclavate, slightly petiolated, very much longer than the thorax; hind border of the second segment whitish. Four anterior legs whitish excepting the coxae; middle femora

striped with black; hind tarsi whitish. Wings dark cinereous; stigma and veins black; discal areolet pentagonal. Length of the body 3 lines.

## 2. Ichneumon diversipes.

Male. Black, shining, thickly and very minutely punctured. Head as broad as the thorax; front white. Antennae piceous, a little shorter than the body; first joint with a white spot beneath. Metathorax with a slight longitudinal furrow. Abdomen fusiform, nearly smooth, a little longer than the thorax. Four anterior legs pale luteous except the coxae. Hind femora red towards the base; hind tibiae red, black towards the tips; hind tars white, first joint and tip of fifth joint black. Wings blackish; stigma and veins black; discal areolet pentagonal, small. Length of the body 4 lines.

#### 3. Ichneumon lanceolatus.

Male. Black, slender, shining, very finely punctured. Antennae somewhat shorter than the body. Abdomen more than twice as long as the thorax, clavate from the base to half the length, lanceolate, and thence compressed to the tip; hind borders of the segments luteous; under-side white. Four anterior legs pale testaceous; coxae and trochanters black; femora partly black, whitish at the base. Hind tibiae whitish at the base. Wings dark cinereous; stigma and veins black; discal areolet pentagonal. Length of the body 3 lines.

#### 4 Ichneumon insolitus

Female. Black. Head and thorax finely punctured. Clypeus ferruginous. Antennae stout, much shorter than the body, joints 7-11 white. Mesothorax rather flat. Metathorax with distinct areas, abruptly sloping hindward. Abdomen very finely punctured, a little longer than the thorax, dingy testaceous at the tip and beneath, fusiform excepting the petiole which is rather long and slender. Legs short, stout. Four anterior legs whitish; femora, except at each end, tarsi and tips of tibiae blackish. Hind legs with the tips of the coxae, the trochanters and the

tibiae towards the base white. Wings blackish; stigma and veins black; no discal areolet. Length of the body

 $3\frac{1}{2}$  lines.

Male. Head yellow, except the vertex. Antennae piceous, rather slender, shorter than the body, yellowish beneath towards the base. Thorax and abdomen somewhat roughly punctured. Abdomen linear, subsessile, very much longer than the thorax, whitish beneath. Four anterior legs yellowish-white; coxae black; femora and tibiae striped with black. Hind legs black; tibiae white for half the length from the base.

#### CRYPTIDÆ.

### 5. Ischnocerus bicinctus.

Female. Black. Head and thorax thickly and minutely punctured, slightly shining. Head broader than the thorax. Mandibles yellow. Antennae shorter than the body; first joint red beneath. Metathorax convex. Abdomen fusiform excepting the petiole, much longer than the thorax; second and third segments red about the hind border. Sheaths of the oviduet more than half as long as the abdomen. Legs pale red. Wings cinereous; stigma and veins black; no discal areolet. Length of the body 3 lines.

### 6. Cryptus variator.

Female. Black, shining, very finely punctured. Antennae slender, filiform, much shorter than the body, whitish at the base and with a broad whitish band at a little beyond the middle. Metathorax red, large, convex, with a slight transverse furrow. Petiole black, short. Abdomen fusiform above, thicker beneath towards the tip, red towards the base, much longer than the thorax; a white spot at the tip. Oviduct not less than half as long as the abdomen. Four anterior legs piceous. Hind legs black; femora towards the base and coxae red. Wings blackish; stigma black, whitish towards the base; veins black, tawny towards the base; discal areolet open. Length of the body 5 lines.

### 7. Cryptus maculipes, Smith.

Female. Black, shining. Head and thorax thinly punctured. Head rather broader than the thorax. Antennae slender, shorter than the body; first joint incrassated; second to fifth very long, successively decreasing in length; sixth to tenth white above. Metathorax large, convex. Abdomen subfusiform, rather longer than the thorax, flat towards the base; petiole short, the following segment widening hindward. Oviduct a little less than half as long as the abdomen. Wings blackish; basal half cinerous; stigma and veins black, the former whitish at the base; discal areolet open. Length of the body 4 lines.

The male is described by Mr. Smith.

## 8. Mesostenus (?) laticinctus.

Male. Black, shining, minutely punctured. Head a little broader than the thorax. Antennae ferruginous, rather slender, much shorter than the body. Metathorax dull, minutely scabrous, with a broad longitudinal furrow between two keels. Abdomen very much longer than the thorax, subfusiform except towards the base; petiole striated; second segment widening hindward; third, fourth, and fifth red; fifth much longer than the third and than the fourth. Legs red; hind tarsi and tips of hind femora and of hind tibiae black, wings dark cinereous; stigma and veins black; discal arcolet open.

Var. B. Hind femora black, except at the base. Length of the body 5 lines.

### PIMPLIDÆ.

### Glypta albicoxa.

Nearly allied to G. ceratitis.

Female. Black, stender, smooth, shining, mouth white. Antennae slender, rather shorter than the body. Mesothorax somewhat attenuated in front; sutures of the parapsides very strongly marked; metathorax with a middle longitudinal furrow and with oblique striae on each side. Abdomen tapering towards the base, white beneath, very much longer than the thorax; each dorsal

segment with an oblique stria on each side. Sheaths of the oviduct hardly one-fourth as long as the abdomen. Legs luteous; coxae and trochanters white; tarsi blackish; hind tibiae black, with a broad white band at a little before the middle. Wings cinereous; stigma and veins black; no discal arcolet. Length of the body  $3\frac{1}{2}$  lines.

#### 10. Lissonota semistriata.

Female. Black, shining. Head smooth, fully as broad as the mesothorax. Antennae nearly as long as the body. Thorax slightly and thinly punctured; sutures strongly marked. Metathorax scabrous, with three longitudinal keels. Abdomen smooth except the three first segments, which are finely and longitudinally striated; first as long as the second and third together; under-side yellow for more than half the length from the base. Oviduct nearly as long as the body. Four anterior legs luteous; coxae black towards the base. Hind coxae and hind femora black, with yellow tips, the latter also yellow at the base; hind trochanters and hind tibiae yellow, the latter black towards the tips and with a blackish spot above near the base, their spines yellow; hind tarsi black, vellow at the base. Wings dark cinereous; stigma and veins black; discal areolet triangular. Length of the body 4 lines.

## 11. Macrus apicifer.

Female. Black. Head and thorax rather roughly punctured. Mouth testaceous. Antennae red, a little shorter than the body, black at the base. Mesothorax white about the insertion of the wings. Metathorax white on the hind part and with a white dot on each side in the fore part, the outline of the white hue conical. Abdomen red, punctured, fully twice as long as the thorax; first, second, and third segments white on the hind borders; first white at the base; fifth, sixth, and seventh black, short. Oviduct nearly as long as the abdomen. Four anterior legs whitish. Hind legs red; coxae and trochanters black, with whitish tips; tarsi black; tips of the first, second, and third joints testaceous. Wings cinereous; stigma and veins black. Forewings with a black apical spot; discal areolet triangular, with a very long petiole. Length of the body 5 lines.

#### 12. Ecthrus atrator.

Female. Deep black, shining, nearly smooth. Antennae somewhat shorter than the body, with a white band composed of three joints. Metathorax large, convex, with two slight diverging longitudinal furrows in front. Abdomen subpetiolated, subfusiform except towards the base, much longer than the thorax, clavate when seen sideways, white at the tip above. Sheaths of the oviduct ferruginous, as long as the abdomen. Wings blackish; stigma and veins black; discal areolet pentagonal. Length of the body  $3\frac{1}{2}$  lines.

#### TRYPHONIDÆ.

## Mesoleptus stygius.

Male. Black, shining, thinly and very finely punctured. Head transverse, subquadrate. Antennae nearly as long as the body, ferruginous beneath. Metathorax with a well defined longitudinal furrow. Abdomen smooth, subsessile, very elongate fusiform, much longer and narrower than the thorax, hardly compressed; third segment red at the base. Tibiae and tarsi dark red, the latter and the hind tibiae with black tips. Wings blackish; stigma and veins black; no discal areolet. Length of the body 4 lines.

#### OPHIONIDÆ.

## Campoplex albimanus.

Male. Black, thickly and minutely punctured. Antennae somewhat shorter than the body. Metathorax with a slight longitudinal keel. Petiole long, slender. Abdomen compressed, widening slightly from the base to full two-thirds of the length, very slightly tapering from thence to the tip, much longer than the thorax. Legs long, slender; tarsi very long, much longer than the tibiae; four anterior legs whitish, their femora black except at each end; middle tarsi blackish; tips of first to fourth joints whitish; first whitish towards the base; hind tarsi white, black at the tips. Wings dark cinereous; stigma and veins black; discal areolet quadrangular, very small. Length of the body 6 lines.

## Sagaritis ventralis.

Female. Black. Head and thorax thickly and minutely punctured, slightly shining; clypeus prominent. Mandibles yellow. Antennae shorter than the body; first joint luteous beneath. Areas of metathorax slightly marked. Abdomen subfusiform excepting the petiole, much longer than the thorax; dorsal segments luteous on each side from the middle to the tip; ventral segments yellow. Coxae and four anterior legs yellow, the former short and thick. Hind femora luteous; hind tarsi black. Wings dark cinereous; stigma and veins black; discal areolet triangular, minute, petiolated. Length of the body  $4\frac{1}{2}$  lines.

# 16. Charops (?) luteipes.

Female. Black. Head and thorax very thickly and minutely punctured, not shining. Mandibles yellow. Antennae shorter than the body; under-side of first joint reddish-yellow at the tip. Metathorax with distinctly marked areas. Mesopectus with a slight furrow. Abdomen fusiform excepting the petiole, much longer than the thorax. Oviduct about one-third as long as the body. Legs reddish; hind coxae black. Wings cinereous; stigma and veins black, the latter testaceous towards the base; no discal areolet. Length of the body  $2\frac{1}{2}$  lines.

#### BRACONIDÆ.

#### Bracon semiluteus.

Female. Deep black, smooth, shining. Antennae a little shorter than the body. Abdomen luteous. Oviduet much shorter than the body; sheaths curved upward. Wings black; stigma and veins deep black. Length of the body 2 lines.

Nearly allied to B. ovator, Nees; the oviduct is shorter.

#### EUSPATHIIDÆ.

### 18. Spathius fasciatus.

Female. Black, smooth, shining. Head nearly round.

Palpi whitish. Metathorax rugose, with four slight keels. Abdomen piceous, elongate oval excepting the petiole, with a luteous band on the hind border of each segment. Petiole black, slender, cylindrical, full half as long as the rest of the abdomen. Legs luteous. Wings cinereous; stigma and veins black, the latter testaceous at the base. Length of the body 2 lines.

#### HECABOLIDÆ.

#### 19. Hecabolus cinctus.

Male. Black, shining. Head and thorax smooth; head nearly round; palpi yellow. Antennae slender, rather longer than the body. Metathorax striated. Abdomen subsessile, slightly scabrous, dingy whitish beneath, rather longer than the thorax; hind borders of third to fifth segments whitish; tips tawny. Legs luteous. Wings blackish; stigma and veins black. Length of the body 2 lines.

### CHELONIDÆ.

#### 20. Chelonus dirersus.

Male. Black, thickly punctured, slightly shining. Head yellow, black behind and about the base of the antennae. Antennae pale red; first joint black. Mesothorax with a quadrate yellow spot which has a very deep angular notch in front; a yellow stripe on each side. Propectus yellow. Abdomen with three segments, yellow towards the base, this hue includes all the first segment, except a spot on each side, and forms a large spot on the second segment; under-side yellow. Legs yellow; tips of hind femora and of hind tibiae black, the latter clavate. Wings pellucid, pale brownish about the tips; stigma large, black; veins yellow, black towards the tips. Length of the body 24 lines.

### ICHNEUTIDÆ.

### 21. Proterops basalis.

Male. Black, stout, sabrous dull. Palpi testaceous.

Antennae stout, not shorter than the body. Mesothorax with three longitudinal keels and with a slight transverse ridge. Pectus with a deep longitudinal furrow. Abdomen smooth, shining, nearly round exclusive of the petiole, white on each side toward the base, almost wholly white towards the base beneath. Petiole stout, rather long. Fore legs red. Middle tarsi and tips of middle tibiae ferruginous; spines of hind tibiae whitish. Wings black, very broad; stigma deep black. Length of the body  $2\frac{1}{2}$  lines.

#### BETHYLIDÆ.

## 22. Epyris crassicornis.

Female. Black, elongated, shining. Head elliptical, thinly and largely punctured. Antennae red, thick, compact, less than twice as long as the thorax; first joint black. Prothorax elongate, narrower in front, punctured like the head. Mesothorax rather short, nearly flat. Metathorax much developed, tapering hindward. Abdomen fusiform, a little broader but hardly longer than the thorax, red at the tip. Wings brown; veins tawny. Length of the body  $2\frac{1}{2}$  lines.

### CYNIPIDÆ.

# 23. Rhodites Japonica.

Female. Black, shining. Antennae filiform, slender, shorter than the body; first joint red, stout; second elliptical; third and following linear. Abdomen and legs red. Wings brownish; veins black, strongly marked; an elongated black spot at each end of the radial areolet. Length of the body 2 lines.

It has much resemblance to the American R. bicolor, Harris, but the radial areolet is larger.

## Syncrgus Japonicus.

Female. Black, stout. Head and thorax finely punctured. Head with a luteous dot on each side of the clypeus. Eyes livid. Antennae luteous. Scutum with

three striae, the pair slightly converging hindward. Abdomen slightly compressed. Oviduct extending a little beyond the abdomen. Legs luteous; femora, except towards the tips and coxae, black. Wings pale cinereous; veins yellow. Length of the body  $1\frac{3}{4}$  lines.

Descriptions of Amurland Chalcidia: by F. Walker, Esq.

There are two great regions in the higher latitudes of the Northern Hemisphere. The first includes Northern Asia, with Northern Europe; the second is formed by North America. There is yet much to be noticed in the mutual likeness and difference between the insect races of these two regions, of which the first is far more wide than the second, and may be divided into Northern Europe and Northern Asia, or into England and Northern Asia, and these two may be considered separately or together with the allied species of North America. The present differences in the Insect-Fauna of the region between England and North-east Asia were probably established after the glacial period, and the following list of Amurland Chalcidie is preparatory to a series of notices of the Hymenoptera and Diptera of Amurland.

## 1. Eurytoma generalis.

Male. Black, slender, nearly cylindrical. Head and thorax thickly and finely punctured. Head broader than the thorax. Antennae slender; joints of the flagellum linear, verticillate-pilose, slightly petiolated. Prothorax fully twice as broad as long, with no trace of pale calli. Scutum and scutellum elongated. Metathorax scabrous. Petiole and abdomen together shorter than the thorax. Petiole about one-third as long as the abdomen, which is elliptical, smooth, shining, and very convex. Legs slender; knees whitish; tarsi piceous. Wings pellucid; veins pale piceous; ulna nearly half as long as the lumerus; radius a little more than half as long as the ulna; cubitus a little shorter than the radius; stigma small. Length of the body  $1\frac{1}{2}$  line.

Female. Antennae subfiliform. Abdomen subfusiform, lanceolate at the tip, narrower than the thorax, which it almost equals in length. Length of the body 2 lines.

### 2. Eurytoma leveoptera.

Male. Black, slender. Head and thorax finely scabrous. Head a little broader than the thorax. Antennae shorter than the thorax; joints of the flagellum subelliptical, petiolated, verticillate-pilose, hardly dilated. Prothorax about twice as broad as long. Petiole and abdomen together much shorter than the thorax. Petiole a little more than half as long as the abdomen. Abdomen smooth, shining, slightly compressed, not gibbous. Legs slender; four posterior tarsi whitish. Wings white; veins very pale brownish; ulna hardly one-third as long as the humerus; radius as long as the ulna; cubitus more than half as long as the radius; stigma very small. Length of the body  $1\frac{1}{4}$  lines

### 3. Eurytoma longicollis.

Male. Black, slender. Head and thorax finely scabrous. Head a little broader than the thorax. Prothorax more than half as long as broad. Petiole and abdomen together much shorter than the thorax. Petiole short. Abdomen elliptical, smooth, shining, not tumid. Knees luteous. Tarsi yellow. Wings pellucid; veins pale brownish; ulna less than half as long as the humerus; radius longer than the ulna; cubitus shorter than the ulna; stigma small. Length of the body 1½ lines.

### 4. Callimome Amurensis.

Female. Golden-green. Head a little broader than the thorax. Head and thorax squamous. Antennae black, subclavate; first joint luteous. Abdomen smooth, a little shorter than the thorax. Sheaths of the oviduct black, much shorter than the abdomen. Legs luteous; tips of the tarsi black. Wings pellucid; veins pale yellow; ulna as long as the humerus; radius about one-fourth as long as the ulna. Length of the body  $1\frac{1}{4}$  lines.

Nearly allied to C. latus.

#### 5 Callimome mediocris.

Female. Bright golden-green, rather stout. Head and

thorax finely squamous. Head cupreous behind. Antennae black, stout. Abdomen smooth, rather narrower and shorter than the thorax. Sheaths of the oviduct about as long as the abdomen. Legs luteous; coxae green, luteous towards the tips; hind femora tinged with green in the middle part. Wings pale cinereous; veins pale brownish. Fore wings broad; ulna much shorter than the humerus. Length of the body 1½ lines.

Nearly allied to C. leptocerus.

### 6. Callimome insolitus.

Female. Bright golden-green. Head and thorax finely squamous. Head broader than the thorax. Antennae black, clavate, shorter than the thorax; first joint luteous. Abdomen smooth, subelliptical, a little shorter than the thorax. Sheaths of the oviduct black, extending a little beyond the abdomen. Legs luteous. Wings pale cinereous; veins testaceous. Length of the body  $1\frac{1}{6}$  lines.

#### 7. Callimome contractus.

Female. Bright green. Head and thorax very finely squamous. Head a little broader than the thorax. Antennae black. Abdomen smooth, elongate-oval, a little longer than the thorax. Oviduet rather shorter than the abdomen. Legs green; knees and tarsi yellow. Wings pellucid; veins yellowish. Length of the body 1 line.

#### 8. Callimome nanulus.

Female. Bright green. Head and thorax very finely squamous. Head a little broader than the thorax. Antennae black, stout, subclavate, rather short. Abdomen smooth, subcliptical, a little shorter than the thorax. Oviduct about as long as the body. Femora green; tibiae brownish. Knees, tarsi and tips of tibiae yellow. Wings pellucid; veins yellowish. Length of the body  $\frac{2}{3}$  line.

## 9. Perilampus selectus.

Male and Female. Bluish-green. Head nearly smooth.

Mandibles red. Antennae black; first joint green. Thorax largely punctured. Abdomen smooth, very convex, a little shorter than the thorax which it equals in breadth. Knees and tarsi ferruginous. Wings cinereous; veins black; ulna less than half as long as the humerus; radius rather shorter than the ulna; cubitus less than half as long as the radius. Length of the body 1½ lines.

# 10. Perilampus obscurus.

Male. Green, shining. Head and thorax finely scabrous. Head and fore part of thorax bluish-green. Head a little broader than the thorax. Antennae black, stout. Sutures of the parapsides very strongly marked. Petiole short. Abdonen elliptical, smooth, shining, deeper than long, narrower but not longer than the thorax. Tarsi luteous. Wings pale cinereous; veins brownish; ulna nearly as long as the humerus; radius and cubitus very short. Length 1 line.

### 11. Lamprotatus nobilis.

Female. Bright golden-green. Head and thorax finely squamous, here and there cupreous. Head a little broader than the thorax. Antennae piecous, stout. Abdomen subsessile, smooth bluish-green except towards the base, about as long and as broad as the thorax, lanceolate from somewhat before the middle to the tip, slightly angular beneath where the lanceolate part begins. Legs luteous; coxae and femora green; the latter luteous at the tips. Wings pellucid, veins pale brownish; ulua about half as long as the humerus, radius rather shorter than the ulna, more than twice as long as the cubitus; stigma brown, small. Length of the body  $2\frac{1}{2}$  lines. The flat and more elongated abdomen and the smaller stigma distinguish it from L, chrysochlorus and from other species.

## 12. Lamprotatus diffinis.

Male. Bright bluish-green, convex. Head and thorax finely squamous. Head broader than the thorax. Antennae black. Abdomen smooth, a little narrower and shorter than

the thorax. Legs yellow; coxae and femora green; tips of the latter yellow; tips of the tarsi blackish. Wings slightly cinereous; veins piceous; stigma black, large. Length of the body  $1\frac{1}{4}$  line.

Smaller than L. rubrius, to which it has much affinity.

## 13. Lamprotatus viridipes.

Male. Bright green, rather slender. Head and thorax finely punctured; head a little broader than the thorax; antennae black filiform, rather shorter than the thorax. Abdomen smooth, nearly linear, narrower and a little shorter than the thorax. Legs green; knees and tarsi luteous; tips of the latter black. Wings pellucid; veins black; stigma large. Length of the body 1 line. The larger size and luteous tarsi distinguish it from L. Scoticus, to which it is closely allied.

## 14. Lamprotatus fulvicornis.

Male. Green. Head and thorax finely squamous; head broader than the thorax. Antennae tawny. Abdomen smooth, subelliptical, about as long and as broad as the thorax. Legs luteous. Wings pellucid; veins brownish; ulna about half as long as the humerus; radius shorter than the ulna; cubitus shorter than the radius; stigma small. Length of the body 1 line.

## 15. Semiotus stigmaticus.

Female. Green. Head and thorax very finely squamous. Head a little broader than the thorax. Antennae black, subclavate, about as long as the thorax. Abdomen smooth, lanceolate, deeply angular beneath near the base, narrower and a little longer than the thorax. Knees and tarsi tawny. Wings einereous; veins and stigma pale brownish, the latter rather large; ulna very much shorter than the humerus; radius shorter than the ulna; cubitus shorter than the radius. Length of the body 1 line.

S. Tauriscus has most resemblance to this species.

### Semiotus fulvicornis.

Female. Green, shining; head and thorax finely squamous. Head broader than the thorax. Antennae tawny, clavate, shorter than the thorax; first joint green. Abdomen smooth, sublanceolate, angular beneath, about as long as the thorax. Legs luteous. Wings cinereous; veins and stigma brownish; ulna a little more than half as long as the humerus; radius shorter than the ulna; cubitus much shorter than the radius. Length of the body 1 line.

### 17. Pachylarthrus promerus.

Male. Golden-green, stout. Head and thorax finely squamous. Head rather broader than the thorax. Antennae luteous, stout, subfiliform, black at the tips, very much shorter than the thorax. Abdomen smooth, flat, narrow at the base, somewhat truncated at the tip, very much shorter than the thorax. Legs luteous; hind femora golden-green except towards the tips. Wings hardly cinereous, nearly pellucid; veins pale brownish; ulna abouthalf as long as the humerus; radius a little shorter than the ulna; cubitus much shorter than the radius; stigma of moderate size. Length of the body 1\frac{3}{4} line. Very near P. fluvicornis, from which it is distinguished by its larger size and by the colour of the hind femora.

#### 18. Pteromalus micans. Oliv.

#### 19. Pteromalus obumbratus.

Male. Æneous black. Head and thorax very finely punctured, red. Head somewhat broader than the thorax. Antennae piceous, filiform, a little longer than the head and the thorax together; first joint tawny towards the base. Abdomen smooth, subsessile, nearly linear, dark geneous, narrower and shorter than the thorax. Legs ferruginous; coxae and femora geneous. Wings dark cinereous; veins black; ulna less than half as long as the humerus, a little shorter than the radius; cubitus much shorter than the radius. Length of the body 1¾ lines.

One of the largest species of *Pteromalus*. I have found it at Nice in May. It is most allied to *R. pundeus*.

#### 20. Pteromalus albidovenosus.

Female. Æneous green. Head and thorax extremely finely punctured. Head broader than the thorax. Antennae black, subclavate, a little shorter than the thorax; first joint luteous towards the base. Abdomen smooth, lanceolate, partly cupreous at the base, keeled beneath except towards the tip, a little narrower than the thorax. Legs luteous; femora mostly and coxae green; tibiae streaked with green; hind tibiae with a broad brown band; tarsi yellow, with blackish tips. Wings pellucid; veins dingy whitish; ulna less than half as long as the humerus; radius a little shorter than the ulna; cubitus much shorter than the radius. Length of the body  $1\frac{1}{2}-1\frac{3}{4}$  line.

Group of P. cingulipes.

## 21. Pteromalus platyphilus.

Female. Greenish æneous, broad. Head and thorax extremely finely punctured. Head much broader than the thorax. Antennae black; first joint tawny. Abdomen smooth, oval, subpetiolated, shorter than the thorax which it equals in breadth. Legs æneous green; knees, tarsi and tips of the tibiae luteous. Wings pellucid; veins yellowish, ulna less than half as long as the humerus; radius a little shorter than the ulna; cubitus much shorter than the radius; stigma brownish. Length of the body 1½ lines.

Belonging to the group of P. cingulipes.

### 22. Pteromalus consocius.

Male. Æneous green, slender. Head and thorax very finely punctured. Head rather broader than the thorax. Antennae black, filiform, as long as the thorax, first joint reddish. Abdomen smooth, nearly linear, shorter and a little narrower than the thorax. Legs yellow; coxae and femora green, tips of the latter yellow. Wings pale cinereous; veins brownish; ulna about half as long as the humerus; radius a little shorter than the ulna; cubitus much shorter than the radius. Length of the body 1 line.

Nearly allied to *P. constans*.

### 23. Pteromalus caligatus.

Female. Bronze colour. Head and thorax most finely squamous. Head somewhat broader than the thorax. Antennae black, slender, about as long as the thorax; first joint tawny. Abdomen subsessile, lanceolate, keeled beneath, æneous towards the base, very much longer than the thorax. Tibiae brown, with whitish tips; knees and tarsi whitish. Wings pellucid; veins whitish; stigma pale brown. Length of the body 1 line.

Allied to R. obscuratus.

# 24. Pteromalus megaspilus.

Female. Greenish-black, rather broad. Head and thorax very finely punctured. Head a little broader than the thorax. Antennae black, stout, subclavate, much shorter than the thorax; first joint dark reddish. Abdomen purplish cupreous, subsessile, smooth, oval, acute at the tip, shorter but hardly narrower than the thorax, keeled beneath. Legs reddish. Wings cinereous. Forewings with a very large blackish spot in the disk; veins tawny; ulna much shorter than the humerus. Length of the body  $1\frac{1}{2}$  lines.

It belongs to the group of P. tricolor.

### 25. Pteromalus clavicornis.

Female. Green. Head and thorax very finely punctured. Head as broad as the thorax; front golden-green. Antennae black, clavate, a little shorter than the thorax; first joint luteous. Abdomen smooth, elliptical, subsessile, keeled beneath, acute at the tip, a little longer and narrower than the thorax. Legs luteous; coxae and femora green. Wings cinereous; veins tawny. Length of the body  $\frac{4}{5}$  line.

Belonging to the group of R. congruus.

## 26. Pteromalus proprius.

Male. Æneous green. Head and thorax very finely

punctured. Head much broader than the thorax. Antennae black; first joint reddish. Abdomen smooth, nearly linear, shorter and narrower than the thorax. Legs reddish; coxae and femora eneous-green, the latter reddish towards the tips; hind tibiae partly brown. Wings pellucid; veins yellowish; ulna about half as long as the humerus; radius as long as the ulna; cubitus very much shorter than the radius; stigma brownish. Length of the body 1½ line.

Nearly allied to R. Elymus.

### 27. Pteromalus placens.

Male. Æneous-green. Head and thorax very finely punctured. Head a little broader than the thorax. Antennae brownish, slender, filiform, much longer than the thorax; first joint luteous. Abdomen smooth, nearly linear, shorter and narrower than the thorax, cupreous towards the base, near which there is a large transverse yellow spot. Legs yellow; coxae and hind femora green, tips of the latter yellow. Wings pellucid; veins yellowish; stigma brown; ulna about half as long as the humerus; radius a little shorter than the ulna; cubitus much shorter than the radius. Length of the body ¾—1 line.

Nearly allied to P. Ortalus.

## 28. Hetroxys tenellus.

Female. Bright golden-green. Head and thorax extremely finely punctured. Head much broader than the thorax. Prothorax somewhat developed. Abdomen subsessile, lanceolate, depressed, much narrower and longer than the thorax. Legs yellow; coxae and femora luteous; hind femora streaked with green. Wings pellucid; veins yellowish. Length 1 line.

### 29. Encyrtus longipes.

Male. Bright green, smooth, shining. Head as broad as the thorax. Antennae yellow, slender, subfiliform, brownish towards the tips, longer than the thorax. Abdomen nearly linear, shorter than the thorax. Legs yellow, long slender. Wings cinereous; veins brownish. Length of the body  $\frac{1}{2}$  line.

## 30. Eulophus purpuraseens.

Male. Bronze colour, slender, smooth, shining. Antennae black, slender, with the usual three branches. Pectus purplish. Abdomen subsessile, nearly linear, a little shorter than the thorax. Knees and tarsi yellow; tibiae brownish. Wings cinereous. Forewings rather broad; veins brownish. Length of the body  $\frac{3}{4}$  line.

Most allied to E. Tapetus and to E. Hedila.

### 31. Entedon Zanura, Walk.

A specimen of this species in the British Museum is labelled E. Cioni, Foerst.

### 32. Entedon Diotemus, Walk.

## 33. Pleurotropis obscurellus.

Female. Bright green, slender, convex. Head as broad as the thorax. Antennae black, shorter than the thorax; first joint green. Abdomen cupreous towards the tip, a little shorter and narrower than the thorax. Tarsi black. Wings cinereous, veins black. Length of the body  $\frac{3}{3}$  line.

Somewhat smaller than *P. Eubius* and than *P. Coenus*, from which it differs by its cinereous wings.

## 34. Tetrastichus lepidus.

Male. Bronze colour, slender, smooth, shining. Head a little broader than the thorax, yellow in front and on each side. Antennae brown, filiform, with long hairs, very little shorter than the thorax. Thorax with two yellow streaks, which are united hindward and occupy the scutellum. Legs yellow. Wings cinereous; veins brown. Length of the body 1 line.

### 35. Tetrastichus deplanatus.

Female. Black, smooth, shining, rather broad. Head as broad as the thorax. Antennae subclavate, shorter than the thorax. Sutures of the parapsides strongly marked. Legs luteous; femora black except towards the tips. Wings pellucid; veins blackish. Length of the body 1 line.

Near allied to T. Attalus.

#### 36. Tetrastichus Amurensis.

Female. Æneous, slender, smooth, shining. Antennae black, subclavate, a little shorter than the thorax. Abdomen sublanceolate, a little longer than the thorax. Knees and tarsi luteous; tibiae brown. Wings cinereous; veins blackish. Var.? smaller. Tibiae luteous. Length of the body  $\frac{2}{3}$ —1 line.

Near allied to T. Agathocles.



Descriptions of two new species of Scorpions: by A. G. Butler, F.L.S., F.Z.S., &c.

## Chactas literarius, n. sp.

Colours:—Above pitchy, the vertex of cephalothorax, mandibles, cheliceres and legs shining castaneous; tail dark castaneous, with a triangular black spot in the centre of the first four segments, fifth segment black behind, vesiculus with a central oval ochreous spot; below, pectus and coxae testaceous; abdomen blackish at the sides, the segments olivaceous in front, ochraceous behind; tail dark castaneous, the segments with a cuneiform black streak on each side.

Structure very similar to *E. granosus*, cheliceres rather longer and slightly more slender, chelæ finely and sparsely punctured, a few coarse punctures here and there; pincers longitudinally irregularly striated, rugulose internally; mandibles coarsely toothed; first five segments of abdomen above with a central W-shaped depression; caudal segments rather short and broad, deeply and abruptly cleft anteriorly above, and excavated posteriorly; last segment and under surface of vesiculus slightly hairy; other segments below more or less distinctly bipunctate anteriorly; body below tolerably smooth and shining, pectines with 19 lamellae; abdominal segments with a well-marked longitudinal depression on each side: length 36 mm.

Soriano, Uruguay (Thos. Havers).

Type B.M. A very pretty little species.

# Chactas Haversii, n. sp.

Allied to the preceding, above pitchy, hind margins of segments dull clay-coloured; pincers of cheliceres and mandibles castaneous; body below dark olive-brown, a lateral fold, the hind margins of the segments and pectines

testaceous; vesiculus above with a dull central castaneous

spot; tarsi below ochreous.

Structure very similar to the preceding species; it differs as follows: pincers of mandibles longer, more hooked; depressions of abdomen above less prominent; segments of abdomen below rugulose; lamellae of pectines 19 on one side, 17 on the other \*; length 45 mm.

Soriano, Uruguay (Thos. Havers.) Type. B.M.

<sup>\*</sup> I have no faith in the number of lamellae as a distinguishing character; it varies almost indefinitely.

Notice of Dr. Mayr's Essay "Die Europäischen Torymiden": by Francis Walker, Esq.

The Torymide, a family of the very extensive tribe of minute Hymenoptera, are intimately associated with galls, as they take a prominent part in the events which occur in these habitations, each gall being a little nucleus for the assemblage of living forms. There are three different agencies as to galls; 1st, the gall-bearers, among which the oak has the pre-eminence; 2nd, the gall-makers; 3rd, the Some of the Cynipida are especially the means of making galls, and are thus the proper possessors of their dwelling-places, but their near relations are introduced into the galls to live at their expense, and to consume their substance and to shorten their lives. But there are other tribes of gall-borers, which have different ways of working; for they have not only the galls, but also the gall-makers or the previous gall-borers, and thereby have a more inward agency and establish another degree of life. Of these borers the Torymida are the chief controllers of the gall-makers, whose capacity of increase requires many limitary agents. Dr. Mayr has published three essays as materials for the history of galls and their inhabitants; one on Oak-galls; another on the Synergi, which associate with the gall-makers; and a third on the Torumida, and the species which he has included in this family and their means of subsistence which he relates are here enumerated. In the first of his three essays Dr. Mayr describes and figures each kind of Oak-gall and gives the name of its maker. His second essay is divided into two parts. the first part he gives the priority to the gall-makers, and allots the second place to the Synergi; in the second part the Synergi are in the first rank and are described, and to each kind is affixed the gall-maker with which it associates The third essay is also divided into two parts, and in the first part Dr. Mayr puts the gall-bearers or plants in the first class, and gives a list of them, excepting the oak, and assigns the second class to the Torumide; in the second part the Torumida take the precedence, and the plants are transferred to the second class. Lochites and Symtomaspis seem to have been needlessly separated from Callimome, and may be again combined with it. Of the three species which are included in *Diomorus*, the first and second differ much from the third and may form one genus with Cruptopristus caliginosus. The third species, D. armatus, is the type of the genus *Diomorus*, which was perhaps unadvisably separated by me from Callimome, the dentate hind femora being the only character which distinguishes it. The genus Podagrion, as I think, should continue in this family, but Dr. Mayr excludes it. I formerly thought that the comparative length of the oviduct was a good specific character in the genus Callimone, but Dr. Mayr has a contrary opinion, and he is most qualified to judge, having been enabled to examine numerous specimens of the family from many kinds of galls. It might be supposed that the length of the oviduct would correspond with the size of the call in which the Callimome seeks to find a maintenance for its offspring, but Dr. Mayr observes that the long oviduct of Syntomaspis caudata is inserted both into the oak apple and into the oak spangle. Oak apples are the chief resort of Callimome: at the end of June and in the beginning of July thousands of Andricus terminalis may be seen coming out of these galls, and they are soon followed by hundreds of Synergus facialis and of Callimome auratus.

#### GENUS I. LOCHITES. Foerst.

### 1. Lochites Papaveris. Foerst.

Galls of Aylax Rhocadis in the same capsules of Papaver Rhocas.

#### GENUS II. MONODONTOMERUS. Westw.

1. Monodontomerus Strobili, Mayr.

Cones of Abies excelsa.

### 2. Monodontomerus obscurus, Westw.

= pubescens, Walk., = Dresdensis, Ratz., = metallicus,

Ratz., = intermedius, Foerst., =? æneus, Fonscol.

This and *M. nitidus* are perhaps one species; it is *Torymus polychlori*, Kollar's MSS., and may be *Cynips punctata*, Enc. Meth. The species recorded as *M. dentipes* in the British Museum List of this tribe is *M. obscurus*, and the species recorded as *M. obsoletus* is *M. dentipes*.

## 3. Monodontomerus nitidus, Newport.

= Anthiphone, Walk., = vacillans, Foerst., = punctatus, Fonscol.

Pupæ of Anthophora retusa and of Chalicodoma muraria.

### 4. Monodontomerus æreus, Walk.

= anephelus, Ratz.

Pupe of Aporia cratagi, Pieris Brassica, Porthesia chrysorrhea, Lasiocampa Pini, Tortrix viridana.

Dr. Mayr mentions the specimens from the last moth as a variety or perhaps a distinct species.

### Monodontomerus dentipes, Boh.

= obsoletus, Ratz., = minor, Ratz., = interruptus, Foerst.,

=? cupreus, Nees, =? obsoletus, Walk.

Pupa of Aporia cratægi, Pieris Rapæ, Lasiocampa Pini, Psyche sp. -? Lophyrus similis, larvæ of Nematus.

## 6. Monodontomerus obsoletus, Fabr.

Pupæ of Aporia cratægi; Zygæna Filipendulæ, Z. Carniolica, Psyche villosella, P. viciella, P. atra, Cimbex lutca, Trichiosoma Betuleti.

#### GENUS III. DIOMORUS. Walk.

## 1. Diomorus Kollari, Foerst.

Crabro rubicola.

### 2. Diomorus calearatus, Nees,

Stigmus pendulus; reared also from the gall of Cynips Kollari, in which it may have been parasitic on a Stigmus, and I have mentioned elsewhere its coming out of the gall of Cynips argentea.

3. Diomorus armatus, Boh.

= nobilis, Walk.

#### GENUS IV. SYNTOMASPIS. Foerst.

1. Syntomaspis caudata, Nees.

= saphirinus, Boh., = affinis, Walk., = litteralis, Walk., = admirabilis, Foerst., = crinicaudis, Foerst = ? affinis, Fonscol.

Andrieus terminalis, Neuroterus lentieularis.

C. apicalis may be a variety of this species.

2. Syntomaspis pubescens, Foerst.

Galls of Rhodites Englanteriæ or of R. Centifoliæ.

3. Syntomaspis fastuosa, Boh.

= notatus, Walk., = chrysis, Nees., = robustus, Ratz. Galls of *Trigonaspis megaptera*.

4. Syntomaspis Cerri, Mayr.

Galls of Synophrus politus and of Andricus singularis.

5. Syntomaspis cyanea, Boh.

= dubius, Ratz., = eurynotus, Foerst., = ? tarsatus, Nees. Galls of *Dryophanta longiventris*, *D. divisa*, *D. agama*, *D. disticha*, *Cynips corticis* and *C. Quercus-inferus*. 6. Syntomaspis lazulina, Foerst.

Galls of Dryophanta folii and of D. longiventris. Perhaps Callimome nigritarsis is a species of Syntomaspis.

#### GENUS V. OLIGOSTHENUS. Foerst.

1. Oligisthenus stigma, Fab.

= ater, Nees. Galls of *Rhodites Rosæ*.

2. Oligosthenus tibialis, Foerst.

Galls of Aylax (Xestophanes) Potentillæ.

#### GENUS VI. CRYPTOPRISTUS. Foerst.

1. Cryptopristus caliginosus, Walk.

= macromerus, Foerst., = intermedius, Foerst., = fulvocinctus, Foerst.

### GENUS VII. HOLASPIS. Mayr.

- 1. Holaspis Kieschwetteri, Mayr.
- 2. Holaspis Apionis, Mayr.

Parasitic on Apion apricans in tufts of Trifolium pratense.

3. Holaspis Stachidis, Mayr.

Galls of Stachys sylvatica.

4. Holaspis militaris, Boh.

Seed-capsules of *Papaver Rhaas*; these capsules inhabited by *Cecidomyia Papaveris*.

5. Holaspis carinata, Mayr.

Holaspis Pannonica, Mayr.

#### GENUS VIII. CALLIMOME. Spin.

- 1. Callimome erucarum, Schrank.
- = fulgidus, Boh., = cynipidis, Walk., = rubripes, Ratz. Galls of Cynips Cerricola.
- 2. Callimome fulgens, Fab.
- = Rosaces, Walk.

Galls of Cecidomyia Fagi.

- C. Rosaces seems to me to be a variety of the preceding species.
  - 3. Callimome chrysoeephalus, Boh.
  - = rudis, Walk.
  - 4. Callimome Gleehomæ, Foerst.

Galls of Aylax Glechomæ.

- 5. Callimome abdominalis, Boh.
- = Cynpidis, Boh., = cingulatus, Nees, = æneus, Nees, = angelicæ, Hab., = medius, Foerst., = cyniphidum, Ratz.

Galls of Cynips cerricola, C. glutinosa, Dryophanta scutellaris, D. folii, D. longiventris. D. divisa, Andricus terminalis, A. curvator, Neuroterus lanuginosus, Spathegaster baccarum.

- 6. Callimome nobilis, Boh.
- = Roboris, Walk., = regalis, Walk., = conjunctus, Nees, = subterraneus, Curt.

Galls of Biozhiza aptera, Aphilothrix radicis, A. Sieboldi.

- 7. Callimome ventralis, Foerst.
- = quadricolor, Walk., = affinis, Foerst.

### 8. Callimome incertus, Foerst.

Galls of Spathegaster baccarum, S. nervosa, Bathyaspis Acris, Cecidomyia circinans.

## 9. Callimome regius, Nees.

= nigricornis, Boh.,=inconstans, Walk.,=lateralis, Walk.,=longicaudis, Ratz. = Devoniensis, Parfitt.

Galls of Cynips cerricola, C. argentea, C. tinctoria, C. Kollari, C. glutinosa, C. polycera, Aphilothrix gemmæ, A. globuli, Synophrus politus, Dryophanta scutellaris, D. folii, D. longiventris, D. divisa, Disticha, Andricus terminalis, A. multiplicatus, A. æstivalis, Spathegaster baccarum.

Dr. Mayr observes that this species is sometimes a parasite on the householder, sometimes on the lodger. In the gall of *C. ylutinosa* it appears in November of the first year and again in the spring of the second year, and is a parasite of *Synergus facialis*. In the gall of *C. Kollari* it is of large size when it is a parasite of the householder and appears in November of the first year, and of small size when it is a parasite of the lodger and appears in the spring of the second year. The lodgers also vary much in size, and these observations suggest the incompleteness of the knowledge of this species. Is the race thus dwarfed by being associated with the lodgers able to restore its offspring to the ancestral dimensions by committing its eggs to the householders?

# 10. Callimome Lasiopteræ, Gir.

## = Arundinis, Walk.

Parasitic on *Cecidomyia inclusa*, on *Lasioptera Arundinis*, and perhaps on *L. flexuosa* in the stems of *Phragmites communis*. *C. elegans*, *C. Arundinis*, and *C. Druparum* are perhaps one species.

## 11. Callimome azureus, Boh.

= caudatus, Boh., = chalybæus, Ratz. Parasitic on *Grapholitha strobilana*.

- 12. Callimome Eglanteriæ, Mayr.
- =? caudatus, Ratz.

Ratzburg reared C. caudatus from galls of Andricus terminalis and Nematus viminalis, whereby Dr. Mayr supposes that several species are confounded under the above name.

- 13. Callimome quercinus, Boh.
- = tarsalis, Walk., = macrocentrus, Ratz. Parasitic on Saperda populnea.
- 14. Callimome Bedeguaris, Lin.

= pretiosus, Walk., = Foersteri, Ratz. Parasitic on *Rhodites Rosæ*.

- 15. Callimome elegans, Boh.
- = varians, Walk. Parasitic on *Cecidomyia salicina*.
- 16. Callimome druparum, Boh.

=divisus, Walk.

From seeds of Sorbus scandica.

- Callimome igniceps, Mayr.
- 18. Callimome pallidicornis, Boh.

= conturbernalis, Boh., = nitidulus, Walk. Probably parasitic on *Cecidomyia Betulæ*.

19. Callimome Artemisia, Mayr.

From galls of Cecidomyia Artemisia.

- 20. Callimome abbreviatus, Boh.
- = euchlorus, Boh., = chloromerus, Walk., = æqualis, Walk., = chlorinus, Foerst.

Parasitic on Cecidomyia Rosa.

Dr. Mayr describes several varieties of this species, and mentions that the oviduct is as long as the abdomen with the thorax or with half of the thorax.

### 21. Callimome speciosus, Boh.

From galls of Hormomyia Fagi.

Dr. Mayr mentions in this and in some other species also the variation of the length of the oviduct.

- 22. Callimome fuscipes, Boh.
- = chlorocopes, Boh.
- 23. Callimome Juniperi, Lin.

= amethystinus, Boh.

From galls of Hormomyia Juniperina.

24. Callimome sapphirinus, Fonscol.

From galls of Lasioptera Eryngii.

23. Callimome cyaninus, Bolı.

This species is probably of frequent occurrence in England; it proceeds from galls or knobs on Cirsium arvense, Carduus acanthoides, C. nutans, Centaurea paniculata, C. montana, C. Jacca, Leontodon incanus, and Inula ensifolia. It is a parasite of Trypeta Cardui, of T. truncata, and probably of other species of Trypeta. I have reared it with Eurytoma plumata and Pteromalus elevatus from thistle galls made by T. cardui.

### Callimome hibernans, Mayr.

From oak-spangles or galls of Neuroterus lenticularis. I have reared Syntomaspis fastuosus from these spangles.

- 27. Callimome Tipulariarum, Zett.
- = pumilus, Ratz.

From galls of Cccidomyia Salicis.

28. Callimome Hieracii, Mayr.

From galls on *Hieracium* made by *Aylax Hieracii* and probably also by *A. Sabaudi*.

29. Callimome Lini, Mayr.

From Linum usitatissimum.

30. Callimome cultriventris, Ratz.

= Nordlingeri, Ratz.

From the conical galls of *Hormonyia Fagi*, and may be a native of England, as this gall has been lately found there. I have reared one specimen from this gall on the Continent.

31. Callimome macropterus, Walk.

= purpurascens, Nees.

From galls of Rhodites spinosissima, of R. rosarum, of Diastrophus Rubi and of Lasioptera Rubi on Rubus cassius.

32. Callimome auratus, Fonscol.

= viridissimus, Boh., = autumnalis, Walk., = confinis, Walk., = mutabilis, Walk., = leptocerus, Walk., = minutus, Walk., = muscarum, Nees, = propinquus, Foerst, = nanus, Foerst., = appropinquans, Ratz., = gallarum, Ratz. (probably).

From galls of Andricus terminalis, A. inflator, A. curvator, A. ramuli, A. 4-lincatus, Spathegaster baccarum, Neuroterus lenticularis, C. basalis, curtus, bicolor, latus, inconspectus, micro-stigma and leptocerus may be also varieties of this species.

33. Callimone amænus, Boh.

 $= {\rm formosus}, \ \ {\rm Walk.}, = {\rm scutellaris}, \ \ {\rm Walk.}, = {\rm compressus}, \\ {\rm Foerst}.$ 

From galls of Aphilothrix radicis and of Trigonaspis megaptera.

C. pretiosus may be a variety of this species.

34. Callimome Dauci, Curt.

From galls of Cecidomyia Pimpinella on Pimpinella saxifraga and on P. magna; also from galls on Pastinaca Sativa and on Daucus carota.

35. Callimome albipes, Gir.

From galls on a Limoniastrum.

36. Callimome sodalis, Mayr.

From galls of Neuroterus lenticularis and of N. lævius-culus. Dr. Mayr observes that it is especially distinguished from C. hibernans by the shorter oviduct.

37. Callimome pygmæus, Mayr.

From the oak-galls of Cccidomyia subulifex.

38. Callimome Corni, Mayr.

From galls of Cecidomyia Corni on Cornus sanguinea.

39. Callimome Galii, Boh.

=gracilis, Walk.

From galls of Cecidomyia Galii, Var. Orobi, from galls of Orobus Pannonicus.

40. Callimome Urticæ, Perris.

= difficilis, Ratz. (probably).

From galls of Cecidomyia Urtica on Urtica dioica.

41. Callimome viridis, Foerst.

From galls of Rhodites Eglanteriæ.

42. Callimome purpurascens, Boh.

= lætus, Walk., = rufipes, Foerst., = congruus, Foerst.

- 43. Callimome flavipes, Walk.
- = contractus, Ratz.

From galls of Trigonaspis megaptera.

44. Callimome socius, Mayr.

With C. Dauci from galls of Cecidomyia on Pimpinella saxifraga, P. magna, Pastinaca sativa and Daucus carota.

- 45. Callimome spilopterus, Boh.
- 46. Callimome Medicaginis, Mayr.

A parasite of Cecidomyia Loti in leaves of Medicago falcata.

- 47. Callimome cupratus, Boh.
- 48. Callimome parellinus, Boh.
- = posticus, Walk.

C. chlorinus, C. exilis and C. terminalis may be varieties of this species.

- 49. Callimome brachyurus, Boh.
- C. abdominalis (Walk.), C. brevicauda and C. nitens may be one species.

GENUS IX. MEGASTIGMUS. Dalm.

1. Megastigmus Synophri, Gir.

From galls of Synophrus politus.

Megastigmus stigmaticans, Fabr.

= stigma, Fabr., = giganteus, Kollar.

From galls of Cynips argentea, C. Kollari, C. glutinosa, C. caput-medusæ, C. calicis and Aphilothrix lucida. It does not occasionally exceed the size of M. dorsalis, from which Dr. Mayr distinguishes it by the dark apical abdominal segment of the male, by the black streak on the hind

femora of the same sex, and by the pale ring of the stigma

of the forewings.

Dr. Mayr observes that this species is very nearly allied to *M. dorsalis*, and especially to the *var. xanthopygus*, and that it is distinguished by the larger size, by the last dark abdominal segment of the male and by the ring on the stigma of the forewing. Small females are often difficult to distinguish from large females of *M. dorsalis*, and one female appeared from the gall of *Andricus noduli* or from that of *A. testaccipes* with the pale ring on the stigma, which is the character of *M. stigmaticans*. He believes that the large specimens of *M. dorsalis* are parasites of the gall-makers when the latter are larger in comparison with the lodgers (*ex. C. lignicola*), but observes that the question is still undecided when the size of the gall-maker does not differ from that of the lodger.

# 3. Megastigmus dorsalis, Fabr.

= Bohemanni, Ratz., = xanthopygus, Foerst.

From galls of Dryophanta macroptera, Cynips Kollari, C. caput-medusæ, C. lignicola, C. conylomerata, C. glutinosa, C. coriaria, C. polycera, Aphilothrix lucida, A. gemmæ, Synophrus politus, Andricus noduli, A. inflator, A. terminalis, A. multiplicatus, A. Cydoniæ, A. singularis, A. Grossulariæ and Spathegaster glandiformis.

# Megastigmus collaris, Boh.

= transversus, Walk., = punctum, Foerst., = vexillum, Ratz., = flavus, Foerst.

Parasitic on Trypeta continua.

# 5. Megastigmus pictus, Foerst.

= strobilobius, Ratz.

Probably parasitic on *Tortrix strobilana*. I believe that I have found it occasionally in the pine woods near Interlacken, in Switzerland.

## 6. Megastigmus bipunctatus, Boh.

= ? erythrothorax, Nees, = ? brevicaudis, Ratz.

Parasitic on  $Tinea\ Epilobiella$  and on  $Hypsolophus\ marginellus$ .



Descriptions of two new species of Coleoptera, pertaining to the Fumilies Cetoniidae and Buprestidae: by OLIVER E. JANSON.

# Lomaptera Higginsii, n. sp. Plate IX., fig. 2.

L. Depressa, atra nitida; elytris subseriatim punctatis, singulis vittis latis rufis; abdomine rufo, apice nigro. Long., 31 mm., lat. 13 mm.

Black, shining, each elytron with a broad longitudinal band extending from the base to the apical callus and the abdomen beneath (excepting the apex of the penultimate and whole of the apical segment) red, club of antennae pitchy.

Head sparingly punctured, longitudinally strigose at the sides, very convex in the centre, clypeus very deeply and narrowly emarginate in front, margins elevated.

Thorax sparingly and rather finely punctured in front, disc and base smooth, sides very deeply and irregularly obliquely strigose, especially near the anterior angles; posterior lobe large, triangular, very slightly rounded at the apex.

Scutellum scarcely visible.

Elytra flat, sides almost parallel, slightly narrowed to the apex, with numerous large, shallow punctures arranged in tolerably distinct rows on the disc, obsolete at the base, deeper and confused at the sides and linear towards and at the apex, basal half of the suture depressed, elevated posteriorly.

Pygidium finely transversely strigose.

Beneath, the thorax irregularly strigose at the sides, smooth in the centre; basal segments of the abdomen remotely and finely punctured in the centre, with numerous large shallow punctures at the sides and on the penultimate

segment, apical segment finely transversely strigose; mesosternal process long, slightly incurved; femora and anterior tibiae strigose, the former with a fringe of short, stout, black hairs, the latter with one sharp external tooth, intermediate and posterior tibiae punctured, faintly notched near the middle.

Borneo. Coll. Higgins.

This fine species, distinguished at once from its congeners by its depressed form, colour, etc., appears to be most nearly allied to *L. pulla*, Billb.

# Catoxantha eburnea, n. sp. Plate IX., fig. 1.

- C. Atro-purpurea aureo tincta, nitida; prothorace antice angustato, lateribus pone medium dilatatis, angulatis, postice constricto; elytris eburneis, margine, apice, suturaque basi nigro-coeruleis, costatis. Long. 45 mm.
- J. Blackish purple with a coppery tint, elytra ivory white, base, external margin, basal third of suture and apex blue-black, abdomen beneath, antennae and legs black, the latter and the whole of the under-side sparsely clothed with very short and fine golden pubescence.

Head large, deeply furrowed in the centre, coarsely punctured, the punctures confluent except at the base, eyes large and prominent.

Thorax transverse, narrow in front, dilated laterally to about one-third from the base, thence somewhat suddenly constricted, thickly and coarsely punctate, the punctures sparse on the disc, confluent at the sides and in the central longitudinal furrow, which is well defined.

Elytra dilated in the middle attenuated behind, closely and finely punctured, with smooth elevated ridges of which the intermediate are less prominent and become almost obsolete towards the apex, the apex of each elytron almost semicircularly emarginate, with an acute tooth at both angles.

Underside and legs punctured, abdominal segments narrowly margined with pale yellow, penultimate segment deeply emarginate.

Andaman Islands, Coll. Janson.

Evidently closely related to *C. purpurea*, White; but, apart from the great dissimilarity in colour, it differs in the following respects; the head is broader with the central furrow deeper and the eyes larger and more prominent, the thorax is much wider, especially behind, and the angle formed by the posterior constriction is well defined and prominent, and the elytra are not so closely punctured and are conspicuously narrower towards the apex.



A Review of Dr. Boisduval's "Monographie des Ayaristidées," published in the "Revue et Mayasin de Zoologie," 1874, pp. 26—110: by W. F. Kirby, Assistant in the Museum of the Royal Dublin Society.

The arrangement adopted by M. Boisduval in the present paper is as follows: Uranides (Urania), Cydimonides (Cydimon), Nyctalemonides (Nyctalemon), Cocytides (Cocytia), Agaristides (Hecatesia, Ægocera, Charilina, Eudryas, Alypia, Amazela, Agarista, Eusemia, Plægorista, and Egybolis).

Perhaps the most striking point in this arrangement, is the absence of the genera *Mania* and *Larunda*, Hübn., (Sematura and Coronis, Auct), the former of which has been placed by all authors close to Nyctalemon, and at times even included in the genus. But we will take M. Boisduyal's genera one by one as they stand.

### GENUS URANIA. (Chrysiridia, Hübn.)

As the Fabrican types (quoted by Boisduval himself in his Species Général, p. 79), are Leilus and Patroclus, it is difficult to understand why both Boisduval and Gnénee select Rhipheus, Cram., which they agree in placing in a different family from *Leilus*, as the type. Boisduval now regards Drury's insect as a second species of this genus, to which the head of a Papilio had been attached. species he renames Druryi, regardless of Drury's Rhipheus having nine year's priority over Cramer's. If Hübner's name Riphcaria be considered inadmissible for the latter, we have Madagascariensis Lesson, I rometheus, Drapiez or Orientalis, Swains, to choose from. Boisduval copies Sganzin's account of the transformations of the common Mascarene species, and mentions a second species said to occur at Sainte Marie, which he supposes to be a variety; but takes no notice of *Cræsus*, Gerst.

#### GENUS CYDIMON. (Urania, R.)

Boisduval maintains the distinctness of his Amphielus (Amphielus), Guén.) considered by the latter as a variety of Leilus.

#### GENUS NYCTALEMON. (Alcides & Lyssa, Hübn.)

The only species of Alcides described by Boisduval are Orontes, and Metaurus. Argyries, Gmel. seems to be synonymous with the true Orontes, Cydnus and Liris, Feld. and Zodiaca, Butl. are probably good species, and deserve notice. Three species of Lyssa are described: Patroclus, Crameri, and Manatius. The second species did not require a new name, as, if it is necessary to reject Hübner's name Patroclaria, Zampa, Butl. has several year's priority. Menatius, Hopfi is probably the same as Hector, Walk., both published in 1856, and the latter not noticed by Boisduval. Longicaudus, Schaufuss, is another unnoticed species, but only known to me at present by name.

GENUS COCYTIA. GENUS HECATESIA. GENUS ÆGOCERA.

Ten species described; and Dalman's (?) Amalthea, noticed. Z. Manas, H. S. is probably identical with Metagorista Triphanoides, Walk., although Herrich Schäffer, (perhaps merely by a printer's error) refers to the latter species under his *Phagorista leucomelas*, in which Boisduval has followed him. Several species in Egocera and other genera have been described from Felder's work on the Lepidoptera of the Novara, which, although it has long been privately circulated among Entomologists, has only quite recently been published. Private circulation. however general, cannot be considered equivalent to publication, and these species will therefore stand as Boisduval's. Three species of Egocera unnoticed by Boisduval, are known to me by description, viz. limbata, Möschl, postica, Walk., and Triphanoides, Wallengr. The last species may possibly prove to be identical with Fervida, Walk.

#### GENUS CHARILINA.

This genus is Walker's, and Boisduval is in error in attributing it to Felder. He places in it Amabilis, Drury (Walker's type; which Walker refers to the Lithosida, placing it near Deiopcia); and decora, Linn., (the type of Pais, Hübn, Walk., placed by the latter in his Castniida). If the two species are to be united in one genus, the name Pais must of course be retained; as even if we concede to Boisduval that Hübner's names count for nothing, Pais is yet used by Walker in an earlier volume to Charilina. Pais Pulchra, Trimen, overlooked by Boisduval, is probably allied to Amabilis.

#### GENUS EUDRYAS.

Three species admitted, *Unio*, *Assimilis*,\* (Doubl. MS.) and *Bartholomæi*. The second species seems to be nothing more than the well-known *E. grata*, Fabr., the last is possibly new, as it is distinct from *Brevipennis*, Stretch, Boisduval is unacquainted both with this species and *E. Sanctw Johannis*, Walk.

#### GENUS ALYPIA.

Nine species admitted, four of which Boisduval claims as his own, unaware that Grote and Robinson described and figured them the year before the publication of his Lépidoptères de la Californie. Similis, Brarmani and Lemata of Stretch, and Langtonii of Couper are all unknown to Boisduval except Similis, which he redescribes as new under the name of Edwardsii. Bimaculata, H.S. (of which Eusemia (1) Crescens, Walk., is probably a var.), is renamed Trimaculata. (It is an open question whether such a correction is allowable). A. Grotei of Boisduval does not appears to be distinct from this species.

<sup>\*</sup> Grote has published some remarks on this paper, relating to this species, Alypia 8-maculata, and Urania Ehipheus, in the Canadian Entomologist, vol. vi. p. 180.

#### GENUS AMAZELA. (Apina, Walk.)

The first species of this "new" genus A. Calisto, Boisd., is Apina Callisto, Walk., who describes two other species Feisthamelii, subsequently referred to Agarista, and Angasii also from Van Diemen's Land and Australia. Boisduval's second species, Echione from S. Africa, may be new; but the locality renders it improbable that it should belong to the same genus.

#### GENUS AGARISTA. (Phalanoides Lewin.)

Twenty-one species admitted (exclusive of Megisto, afterwards placed with doubt in Eusemia), some new. As Boisduval's knowledge of everything published up to within the last fifteen or twenty years is better than that of most other authors, and little has been published lately on this genus, he has only overlooked three species Casuarina, Scott, Micaeca & Hesperoides, Walk., (C. L. H. vii p. 1772). The two latter species probably do not belong to this genus, and have also been overlooked by Walker himself, who has described a second species of Agarista under the name of Micaeca, (C. L. H. xxxi p. 48). I therefore propose the name of Phalanoides Ceramensis for the latter species. Noct. Bambucina, Esch., should have been quoted under Lyncea, Cram.

#### GENUS EUSEMIA.

Forty-nine species described, two doubtful as belonging to the genus; and three others are referred to by Boisduval as unknown to him. He describes several species as new, but has overlooked Walker's E. Terminatus, Conucva, Mollis, Bijugata, Chrysospila, Butleri and Pardalina, and Moore's Funcbris and Albimarginata. It is almost certain that some of his supposed new species will prove to be synonymous with some of these; but in so large a genus it would be hazardous to venture an opinion on their identity, from comparison of description only. Boisduval's Flarociliata is however very close to Moore's Albimarginata, chiefly differing in the colour of the border.

#### GENUS PHÆGORISTA.

Boisduval admits two species, Agaristoides, Boisd., and Leucomelas, H. S. (The latter is Egoccra Manus, Walk. nec. H. S.) To this genus we may add Bula, Moore, Cutocalina, Walk., and Transiens, Walk., (=Cutocaloides, Walk.). The last species, originally described by Walker as a Eusemia, is one of those mentioned by Boisduval under that genus as unknown to him.

#### GENUS EGYBOLIS.

Boisduval thinks that his *E. Natalii* may be distinct from *Vaillantina*, Stoll. Lastly, he adds that a damaged specimen from California, formerly described by him as *Agarista guttata*, proves to be a *Callimorpha* allied to *Dominula & Hera*.

It is scarcely probable that we have succeeded in indicating all the gaps in this paper, which in spite of its deficiences, will be very useful to those who are working at the groups of which it treats. It is only to be regretted that Dr. Boisduval should have omitted to consult the English, German, and American bibliographical works, which must be accessible in the Paris libraries, and an acquaintance with which would have greatly increased the value of his work; and our chief object in the present notice is to indicate to any Entomologist who uses the paper the amount of additional matter which it is necessary for him to consult. (No notice has been taken, however, of the allied genera published by Walker and others; but only of those mentioned by Boisduval, as the bounds of the  $Agaristid\alpha$  are still very uncertain.)



On a small Collection of Arachmida from Queensland, with descriptions of three apparently new species; by A. G. Butler, F.L.S., F.Z.S., &c.

#### PLATE X.

During the early part of the year 1874, we obtained a small collection of Spiders in spirits from Rockhampton, most of which I have succeeded in identifying as rare or uncommon forms; I have not however had time hitherto to determine the Thomisides & Attides, or the genera Stephanopis, Poltys, Sphasus, Clubiona, &c., which are all represented.

I have determined the following:-

# FAMILY EPEIRIDÆ.

Cyrtarachne bispinosa,

Keyserling, Beitr. z. Keuntniss der Orbitelæ in der Verhandl. der k. k. Zool. botan. Gesellsch, zu Wien. p. 4, n. 802, (1865).

Several examples (young and adult).

Tholia clypeatu.

Koch, Arachn. Austral. p. 23 (1871).

I believe that the above is the species represented in the collection by one minute example.

Tholia nasalis, n. sp. Pl. x, figs. 4, 5.

♀. Colours—Cephalothorax mahogany-red, its anterior margin clothed with short testaceous hairs; mandibles mahogany-red, densely clothed internally with testaceous hairs, terminal moveable claw lighter reddish; maxillæ and mouth sordid testaceous, sternum pale fleshy-brown; abdomen dull ochreous, the outer margin, excepting at the back occupied by fourteen grey-centred occiloid spots, four similar central spots arranged in a square (the front pair nearest together), between and at the back of which is a very irregular sinuated and partly embossed transverse blackish marking, behind which marking, the ground colour is brown dotted with ochreous; venter grey with rather narrow testaceous outer margin: legs mahogany-red, clothed sparsely with testaceous hairs, tips of tarsi black; palpi mahogany-red, densely clothed with testaceous hairs.

Structure—Cephalothorax rather longer than broad, wider belind than before and convex at the sides; head gradually ascending in the middle to the central oculiferous prominence, which is considerably higher than the lateral tubercles; the front pair of central eyes smaller and nearer than the hind pair; lateral pairs placed slightly obliquely; mandibles cylindrical, narrower from the middle forwards; sternum unequally pyriform: abdomen about 2 broader than long, convex and waved in front, round at the sides, obtusely conical behind; the front area is swollen in the centre close to the margin and produced obliquely backwards into a robust, prominent, obtusely-terminated projection (length 3 mm.), the hinder area is elevated and somewhat abruptly bent downwards, and is ornamented by a longitudinal central series of small tubercular processes. the two first being somewhat isolated and most prominent: palpi short, thick; legs longitudinally sulcated: length of cephalothorax (without the mandibles) 3½ mm.; of abdomen 5\frac{1}{2} mm., width 8 m.m., relative length of legs, 4, 2, 1, 3, the fourth pair being the longest.

Allied to T. turrigera of Koch, but at once distinguished by the differently formed and backward directed projection on the abdomen, besides numerous other minor distinctions.

Argiope magnifica.

Koch, Araehn. Austral. p. 27, n. 1, t. ii, fig. 6 (1871).

Argi**o**pe yorgonea.

Koch, l. e., p. 35 (1871).

Argiope protensa.

Koch, l. c. p. 211, t. xviii, fig. 8, 8a, 8b (1872).

Anepsia rhomboides.

Koch, l. c. p. 46, t. iii, fig. 8 (1871).

Epeira felina, n. sp. Pl. x. figs. 1, 2.

2 Colours—Cephalothorax dull olive-brown, clothed all over with short greyish hairs; mandibles yellowisholive becoming reddish towards the extremities, tip and moveable claw piceous; maxillae and mouth shining claycolour; sternum grevish-brown, with central longitudinal clay-coloured spot: abdomen above bright mahogany-red, ochraceous dotted with black in front, also a whitish ochraceous almost reniform spot behind the dorsal black tubercles: from the tubercles backward an indistinct diamond pattern of grey lines; several longitudinal central dots and a triangular zigzag series on each side, silverywhite: sides dark-brown, becoming greyish towards the base, with an oblique series of three bisinuate markings, a number of short oblique parallel liture, and several dots, silvery-whitish: venter blackish with a central oblong darker area, bordered on each side by an irregular white line, and crossed down the middle by eight white dots in a double series; legs pitchy, femora clothed with short testaceous hairs, tibie and tarsi with short blackish bristles. tibiæ with a whitish band near the base, tarsi greyish at the base.

Cephalothorax circular, truncated in front, and slightly excavated behind, central depression large, an impressed oblique line from each side of it to the posterior margin of the caput, the latter flat with a central longitudinal ridge running backwards from the central oculiferous tubercle, which is slightly more prominent than the lateral tubercles; anterior central pair of eyes rather smaller than the posterior pair, nearer to one another than to the latter, and slightly nearer than the latter are to one another lateral eyes placed near together, somewhat obliquely, equal in size to the anterior central pair; mandibles cylindrical, terminal moveable claw small; sternum irregularly arched in front, pyramidal behind: abdomen oval, abruptly and

obliquely cut from the apex of the oval to the spinnarets (viewed laterally it is distinctly conical); two small vertical tubercles on the anterior area, between and behind which are two impressed punctures, and in the centre of the abdomen four larger impressions forming a square; venter smooth; palpi rather short, tibiæ and tarsal joints covered with strong bristles; legs cylindrical, clothed with bristles and short hairs. Length of cephalothorax 9 mm., of abdomen 18, width at widest part 11, first pair of legs 43, second pair 39, third pair 25, fourth pair 38.

Allied to E. heroine of Koch.

Epeira transmarina.

Keyserling, Verhandl. k. k. Zool. botan. Gesellsch. Wien. p. 814, t. xviii, figs. 15, 16, (1865).

Epeira mucronata.

Koch. Arachn. Austral. p. 74, t. vi, figs. 2, 3, 3a (1871).

Epeira tenella?

Koch. l. c. p. 76, t. vi, figs. 5, 5a, 6, 6a (1871).

Meta monogrammata, n. sp. Pl. x. fig. 3.

Colours—Cephalothorax silvery-white, with two minute shining oblique lateral black tubercles behind; front of caput and mandibles shining-black; maxillae piecous; mouth stramineous; sternum grevish at the margins, its central area (which is prominent and leaf-like) testaceous; abdomen whity-brown, silvery in front, with an irregularly trilobed basal black marking, two central waved longitudinal white lines, terminating behind in a species of crux, by the addition of lateral outline square spots; four impressed black dots on the anterior area, limited by the white central lines; a lateral marginal waved white line, relieved externally by brown streaks; sides of abdomen obliquely spotted and streaked with brown and black, conical end with a central black bar: venter blackish at base and anus, pale-brown spotted with black dots at the sides; a central subquadrate patch, emarginate behind, white, crossed tranversely by three macular black bars;

legs shining olivaceous, gradually darker from base to apex, the tarsi blackish at the tips.

Structure-Very similar to E. decorata: Length of cephalothorax 5 mm., of abdomen 8, width 31, relative length of legs? 1, 2, 4, 3, the first pair being apparently the longest.

The only example of this species is in rather a tender condition the single leg of the first pair being already detached so that I have been afraid to examine it very minutely, it is undoubtedly a new species allied to E. decorata, of Blackwall.

Nephila sulphurosa.

Koch, Arachn. Austral. p. 163, t. xiv, fig. 2, (1872).

#### Sub-Family ARCYINÆ.

Areys lancearius.

Walckenaer, Aptères 1, p. 497, ; pl. 13, fig. 3a (1837).

#### FAMILY THERIDIDÆ.

Latrodectus hasseltii

Thorell, Oefvers. af. Kongl. Vetensk. Akad. Förhandl. n. 4, p. 369 (1870).

Latrodectus catano.

? L. scelio var. Thorell. l. c. p. 370 (1870).

#### FAMILY ENYOIDÆ

Habronestes striatives.

Koch, Arachn. Austral. p. 313, t. xxv, fig. 4 (1873).

#### FAMILY DRASSIDÆ.

Cheiracanthium longimanum, ?.

Koch, l. c. p. 398, t. xxxi, figs. 1, 2 (1873).

The reference to the following species was kindly forwarded to me by the Rev. O. P., Cambridge.

Idiommata reticulata.

Koch, Arachn. Austral. t. xxxvi, figs. 4, 5 (1875).

#### Explanation of Pl. X.

- Fig. 1. Epcira felina, with arrangement of eyes.
  - , 2. , (dorsal view, without colour markings.)
  - " 3. Meta monogrammata, (dorsal view of abdomen.)
  - 4. Tholia nasalis (dorsal view.)
  - 5. " (lateral view.)

Contributions to the Diptera of New Zealand: by A. G. Butler, F.L.S., &c.

Whilst looking over some old MSS. in the British Museum a short time since, Mr. White's imperfect MS. Catalogue of the Insects of the "Erebus and Terror" was discovered; the following are a few of the descriptions contained therein, which appear from Captain Hutton's List, not to have been published up to the present time.

#### GENUS LIMNOBIA.

L. fumipennis, n. sp.

Tipula (Cylindrotoma) fumipennis, White MS.

Head and thorax dark-brown, abdomen dark-brown, with a widish pale line at the base in the middle; legs black; wings blackish, the veins at the end margined with a deeper black than the general surface of the wings.

Hab. New Zealand.

#### GENUS PANGONIA.

P. lerda, n. sp.

Tabanus lerda, White MS.

Palpi and antenne yellowish-brown, the latter blackish at the end. Face and front with greyish down; thorax above black; a line of deep-brown hairs on each side; a tuft of yellowish hairs on each side, near the base of the wings; scutellum black; abdomen above ferruginous brown, black in the middle, the terminal segments with yellowish hairs on the margins; under side of the thorax with longish yellow hairs in front and on the sides, in the middle greyish; abdomen beneath ferruginous, almost without hairs; legs ferruginous without hairs; no tooth on the third joint of the antenne.

Hab. New Zealand.

P. adrel, n. sp.

Tabanus adrel. White MS.

Palpi brownish, beak deep-black; face and front with a yellowish-grey down; antennæ black; thorax blackish-brown above, the side with a narrow line of black hairs, beneath yellowish-grey; scutellum blackish-brown, between the scutellum and the base of wing a tuft of yellowish-grey hairs; abdomen above black, with a spot of yellowish-grey hairs on each segment, in the middle of the margin; a considerable tuft of whitish hairs on each side, near the end of the abdomen; in the male the whole of the under side is covered with yellowish-grey hairs; legs black with short hairs, tibiæ of fore legs yellowish, wings somewhat fuliginous, an abbreviated band of a deeper colour about the middle: no tooth on the third joint of the antennæ.

Hab. New Zealand.

#### GENUS TABANUS.

T. oplus, White MS.

Palpi yellowish, beak blackish; face and cheeks grey; thorax above light olive-brown, with longish hairs, beneath it is more grey; abdomen above brownish-yellow; a black line down the middle, interrupted at the margin of each segment which is brownish-yellow; legs light yellowish-brown: wings light.

Hab. New Zealand.

The remainder of Mr. White's descriptions have been superseded by those of Mr. Walker's and others, so that it would be rather injurious (as regards synonymy) to repeat them here.

Descriptions of new species of Diurnal Lepidoptera; by Herbert Druce, F.L.S., F.Z.S. (Continued from page 290).

# FAMILY I. NYMPHALIDÆ, Swains.

#### SUB-FAMILY II. SATYRINÆ. Bates.

GENUS ZOPHOESSA. Westw.

Zophoessa Dirphia, n. sp.

Upperside dark brown, anterior wing crossed beyond the middle from the costal margin to near the anal angle by a pale brown band almost yellow on the costal margin, a yellow spot beyond near the apex, below which are three minute black spots, posterior wing dark brown with a submarginal row of four incomplete ocelli, the second the largest, the third minute, the fringes of both wings white. Underside bright chesnut brown, anterior wing crossed beyond the middle by a cream coloured band, a pale coloured band crossing the middle of the cell bordered widely within by a wide reddish brown band which crosses both wings, terminating near the inner margin of the posterior wing, a row of four white pupilled ocelli near the outer margin which is pale brown with a very fine dark brown submarginal line. Posterior wing crossed beyond the middle by a reddish brown band, bordered outwardly by pale yellowish brown, a submarginal row of six white pupilled ocelli the first and fifth the largest, the outer margin pale brown with a dark submarginal brown line. Exp. 21/2 inch

Hab. Darjeeling. Mus. Druce. This species is allied to L. Andersoni, Atkinson.

#### SUB-FAMILY VI. ACRÆINÆ. Bates.

#### GENUS ACRÆA.

#### Aerwa Naura, n. sp.

Upperside brownish black, a bright red line in the cell of the anterior wing near the base, which is speckled with a few red scales. Underside anterior wing brownish black, lightest at the apex and the outer margin, the basal half of the cell bright red. Posterior wing brownish, darkish in the middle, the base and the cell very pale brown, almost white, the nervules and lines between them all black. Exp. 13 inch.

Hab. Merida, Venezuela (Goering). Mus. Druce. Quite unlike any species with which I am acquainted.

#### SUB-FAMILY VIII. NYMPHALINÆ. Bates.

GENUS PERISAMA.

#### Perisama Goeringi, n. sp.

Upperside black, anterior wing with a narrow band of golden green from the base to the middle, where it joins an indistinct band crossing the wing to the inner margin, an oblique golden green spot near to and beyond the middle of the costal margin, and a pale blue line near the apex. Posterior wing with a narrow broken submarginal band of bluish grey commencing at the anal angle, and not quite reaching the apex, the fringe alternately black and white. Underside, anterior wing blackish brown from the base to the end of the cell and the apex ochraceous, a short band beyond the middle of the costal margin white, terminating with a blue spot and a blue line above the middle of the costal margin. Posterior wing ochraceous yellow crossed at the middle by a waved black band broadest at the costal margin, an indistinct submarginal waved band and a row of small spots crossing the wing beyond the middle black. Exp. 2 inch.

Hab. Merida Venezuela (Goering). A very distinct species.

#### GENUS PAPHIA. Fabr.

#### Paphia Bertha, n. sp.

Form of *P. Panariste*. Upperside anterior wing dark brown, with a few reddish scales along the inner margin, and a white spot at the apex; a row of five pear shaped cream coloured spots crossing the wing near the outer margin, the one nearest the anal angle the largest, the fourth small. Posterior wing dark brown, the abdominal half reddish brown crossed beyond the middle by a wide cream coloured band, dentated on its inner margin, commencing a little below the apex and terminating at the anal angle, the outer margin blackish brown, the fringe of both wings yellowish white. The underside is the same as in *P. Panariste* except that it is a little darker coloured, and the dark markings wider. Exp.  $3\frac{1}{2}$  inch.

Hab. Columbia. Mus. Druce.

A very beautiful species allied to P. Jansoni.

It is just possible that the above is the female of *P. Panariste*, but I do not think it at all probable, because the sexes of the two species belonging to the group. *P. Electra* and *P. Jansoni* are alike.

#### SUB-FAMILY IV. LEMONIINÆ.

GENUS LYROPTERYX, Westw.

#### Lyropteryx Cleadas, n. sp.

Upperside male, blue black with the blue bands the same as in *L. Lyra*, only not quite so wide, the posterior wing without the red spot on the middle of the abdominal margin. Underside brownish black, anterior wing with four bright scarlet spots near the base, not glossed with purple as in *L. Lyra*, the wing covered with white radiating lines, taking the direction of the nervures, and increasing in width as they reach the outer margin. Posterior wing brownish black with nine irregularly sized bright scarlet spots not glossed with purple, the spots placed nearest the base, covered with white lines similar to those on the anterior wing. Upperside female,

dull brownish black, both wings with the outer margins bright scarlet crossed by black nervules. Underside brown, anterior wing black towards the base, near which are five scarlet spots, the scarlet marginal band broken into spots by brownish white lines in the direction of the nervules. Posterior wing brown with nine unequal sized scarlet spots on the basal half, the scarlet marginal band wider and divided into spots by brownish white lines. Exp. 3 1 $\frac{3}{2}$ ,  $\frac{3}{2}$  inch.

Hab. Valley of the Rio Polochic (Hague). Mus. Salvin,

Godman & Druce.

A very distinct species, especially the female.

This genus will now contain five species as follows:-

L. Appollonia, Westw.
 Hab. Peru and Bolivia
 L. Lyra, Saund.
 Hab. New Granada.

3. L. Olivia, Butl.\* Hab.

4. L. Cleadas, *Druce*. Hab. Rio Polochic, Guatemala.

L. Terpsichore, Westw. Hab. Brazil.

GENUS ANTEROS. Hubn.

#### Anteros Micon, n. sp.

Upperside dark brown, anterior wing with a small central white spot, the fringe white. Posterior wing with the costal margin the anal angle and the fringe yellow. Underside, pale yellow with bright chesnut spots placed very much as in A. Formosus, Cr., only much smaller and brighter coloured, the metallic spots are also smaller, a submarginal line of metallic dots to both wings. Exp. 1 inch.

Hab. Calobre (Arce). Mus. Salvin Godman & Druce.

A pretty little species allied to Formosus, Cr.

<sup>\*</sup> I think it likely this will turn out to be the female of Lyra, or it will be another Central American species of which we have not yet seen the male. I have seen a specimen agreeing with mine from Chiriqui in Dr. Staudinger's collection.

#### FAMILY LYCÆNIDÆ.

GENUS MILETUS, Hubn.

## Miletus Hamada, n. sp.

Upperside male, dark brown, lightest in the middle of the anterior wing. Underside of both wings white, crossed from the costal margin of the anterior to the inner margin of the posterior wing by five rows of large black spots, a fine black line round the outer margin of both wings, the fringe alternately black and white. The female differs slightly from the male, being paler in colour above, and having all the black spots smaller below. Exp. 3, \$\frac{1}{1\frac{1}{10}}\$ inch.

Hab. Yokohama, Japan (*Pryer*). Mus. Druce. This species is quite unlike any other with which I am acquainted.

## Miletus Docus, n. sp.

Upperside, anterior wing pale brown with a large central bluish white spot, crossed by two very fine black lines, a brown spot at the end of the cell. Posterior wing very pale brown, almost white in the middle, with a brown spot at the end of the cell. Underside pure white, thickly crossed by very fine brown zigzag lines which are very indistinct on the posterior wing except at the base, where they form two or three spots. Exp. 1 inch.

Hab. Madagascar. Mus. Druce.
A beautiful little species most delicately marked on the underside

#### GENUS LYCENA.

## Lycana Kazamoto, n. sp.

Upperside of both wings dark brown, in some lights shot with green, the anterior wing with a dark streak at the end of the cell. Underside pale drab, anterior wing with a dark streak at the end of the cell the same as above, and

crossed beyond the middle by a band of six blackish spots curved inwards. Posterior wing with one black spot close to the base and one in the middle of the cell, crossed below the middle by a curved band of eight black spots surrounded with pale greyish white, a submarginal row of very indistinct brown spots common to both wings. Exp.  $1_4^3$  inch.

Hab. Yokohama, Japan (*Pryer*). Mus. Druce.

Allied to L. Fusca, Brem. Grey, but quite distinct.

#### GENUS THECLA, Fabr.

#### Thecla Damo, n. sp.

Upperside,  $\delta$  pale greenish blue, anterior wing very long and narrow, the costal margin nearly from the base to the apex brownish black, the hind margin blackish, posterior wing with the costal and outer margin blackish brown, the inner margin greyish, two black spots near the anal angle, the first the smallest. The posterior wing with two tails. Underside, greyish white, anterior wing with a row of five black spots below the costal margin, a black line at the end of the cell with two black spots beyond, and one black spot below them. Posterior wing with the black spots placed much as in T. Marsyas, Godt., to which species this is nearly allied. Exp.  $2\frac{3}{4}$  inch.

Hab. Calobre (Arcé). Mus. Salvin, Godman & Druce.

#### FAMILY HESPERIDÆ.

GENUS PYRRHOPYGA, Hubn.

Pyrrhopyga Cossea, n. sp.

Upperside, anterior wing glossy black, with nine semi-transparent white spots arranged exactly as in P. Macolosa, Hew. Posterior wing black, crossed from the costal margin almost to the inner margin by a broad bright orange band, the fringe of the posterior wing black and white. Underside, anterior wing glossy black with the spots the same as above, a few orange coloured scales at

the base, and an orange spot on the middle of the costal margin. Posterior wing bright orange with the outer margin broadly black, a black line crossing the wing from the costal margin near to the inner margin. Exp.  $2\frac{1}{8}$  inch.

Hab. Columbia. Mus. Druce.

A very beautiful species allied to *P. Maculosa*, Hew. (Agathon Feld.) but very distinct.

# Pyrrhopyga Cosyra, n. sp.

Upperside, anterior wing glossy blue black, a few orange coloured scales at the base, crossed at the middle by a band of three transparent white spots, two beyond and three near the apex. Posterior wing orange, with the outer margin broadly blue black. Underside, anterior wing black with the white spots as above. Posterior wing glossy blue black. Exp. 24 inch.

Hab. Bugaba, Veragua.

Mus. Druce.

#### GENUS ERYCIDES, Hubn.

#### Erycides Romula, n. sp.

Upperside, black with the fringe white, the front of the thorax and the anus brick red, the head and antennablack. Underside, anterior wing black, with the apical half and the costal margin olive green, all the nervules black. Exp. 23 inch.

Hab. Columbia. Mus. Druce.

On the upperside this species closely resembles *Pyrrhopyya Rhacia*, Hew.



Note on the Colcopterous genus Cantharolethrus with description of the female of C. Luxerii: by Chas. O Waterhouse

The British Museum has recently been fortunate enough to add to the collection of *Lucanide*, a female example of *Canthurolethrus Luxerii*, and as it appears not to have been noticed, I subjoin a description.

#### Canth. Luxerii, Buquet, ♀.

Elongatus, ater, velutinus. Capite thoroceque granulosis granulis nitidis. Elytris ad humeros linea obliqua elevata nitida. Long. 131 lin., lat. 51 lin.

Head rather long, depressed, narrowed behind the eyes; the whole surface densely and very strongly punctured, the interstices appearing granular and shining, the disk with a large somewhat deep fovea behind. Thorax as long as the head and mandibles together, nearly twice as broad as long, narrowed in front, the front margin bisinuate, the anterior angles very slightly prominent and obtuse, the sides irregularly crenulate, posterior angles obliquely emarginate. the angle in the side made by the emargination prominent, nearly rectangular; the posterior margin flexuous; the disk with five shallow impressions which are with the rest of the surface thickly and rugosely punctured, the raised parts between the impressions shining. Scutellum shining, strongly punctured. Elytra a little narrower than the thorax narrowed towards the apex, dull velvety black; each elytron with a slightly oblique flexuous shining punctured carina, extending from the shoulder to near the middle of the elytron.

Hab. Bogota. (Mr. Chesterton, by whom the & was also sent).

This insect is at once distinguished from *C. Reichei*, (which has by many been considered the \$\partial of \$C. Luxerii) by its much narrower form &c. From the \$\partial of \$C. Buckleyi it is distinguished by its longer head, and by the humeral carina of the elytra being longer and more marked.

Description of a new genus and species of Lamellicorn Coleoptera (Rutclida): by Chas. O. Waterhouse.

#### FAMILY RUTELIDÆ.

Cyphelytra, gen. nov.

Clypeus separated imperfectly from the forehead by a suture, slightly bidentate at the apex. Maxillary palpi rather large, the apical joint slightly inflated, subfusiform, deeply impressed above. Posterior border to the thorax margined only near the posterior angles. Scutellum slightly transverse. Mesosteral process very small, not projecting beyond the coxe. Posterior tarsi rather slender, as long as the tibiæ; the larger claw to the intermediate and posterior tarsi slightly bifid at the apex. Anterior tarsi stout, a little shorter than the tibiæ, the basal joint very small, the second, third and fourth transverse, the fifth as long as the four previous joints together, stout; claws very unequal, the larger one slightly bifid at the apex. Antennæ with the basal joint elongate, the second small, the third to fifth slightly elongate, the sixth triangular, the seventh transverse, the eighth to tenth forming a compressed club, equal in length to the previous joints taken together.

This genus is closely allied to Parastasia, but the form of the head, the structure of the antenna and the anterior

tarsi at once separate it.

# Cyphelytra ochracea, sp. nov.

Oblonga ochracea; capite maculis duabus, thorace maculis undecim, elytrorum lineis nonnullis irregularibus tarsisque nigris. Long.  $7\frac{1}{2}$  lin., lat.  $4\frac{3}{4}$  lin.

Bright other yellow, the elytra somewhat paler. Head with two black spots on the forehead; elypeus narrowed

towards the front, the line separating it from the head obliterated in the middle, the apex notched, the margins, the canthus of the eve and the mandibles black: the apical joint to the maxillary palpi piceous, deeply impressed Thorax arched, broadest behind, narrowed in front, very sparingly punctured, the anterior angles slightly There are eleven black spots placed as follows: two oblong spots in the middle of the front with a small oblique spot on each side, a triangular spot on the lateral margin; an oblong spot in the centre near the posterior margin, with a round spot on each side of it; a small elongate spot on the posterior border just by the shoulder. Scutellum in a curvilinear triangle, slightly transverse, margined with black. Elytra scarcely broader than the thorax at the base, enlarged posteriorly, rounded towards the apex, the surface somewhat uneven, with some black lines and spots placed as follows: on each elytron a small spot a little below the scutellum, two others oblique behind the middle, two small humeral spots, two others near the margin, and lastly two flexuous parallel lines reaching from the middle of the elytra to near the apex. There is a line of punctures near the suture, another line running obliquely from the shoulder to the first black spot and after approaching the scutellum again descends and joins the sutural line. The lateral and other spots are bordered with large punctures. The underside of the insect is pale yellow, with various spots and the borders of the abdominal segments piceous. The tibiæ are brownish on the innerside: the tarsi are black.

Hab. India, Allahabad (Bowring). Coll. Brit. Mus.

The markings and sculpture of the clytra are so unusual in this insect that I was in doubt whether they might not be the result of accident; I have, however, now seen a second smaller specimen from Darjeeling, which agrees in every particular, and shows that these peculiarities are natural to the species.

Descriptions of some new Colcopterous Insects belonging to the genera Myodites and Rhipidius (Rhipiphoridæ): by Chas. O. Waterhouse.

## Myodites niger, sp. nov.

Niger, nitidus, crebre subtiliter punctulatus. Thorace plagis quatuor levibus. Elytris obscure testaceis, basi apiceque piceis, parce subtiliter punctulatis, lateribus fere levibus. Pedibus anticis obscure piceo-testaceis, intermediis posticisque nigro-piceis, his tibiarum basi tarsorumque articulo basali flavis. [Antennæ desunt.]

Long.  $2\frac{1}{2}$  lin.

Head finely and obscurely granulose, vertex with a very slight obtuse tubercle. Thorax very thickly and not very finely punctured, the interstices irregular; on each side of the disk there is a smooth spot, and near the hind margin two others smaller and rather nearer to each other. Elytra pitchy with an obscure yellow band near the base, the apex less obtuse than in *M. fasciatus*; the base is somewhat thickly and distinctly punctured, the apex and sides sparingly and obscurely punctured. Abdomen thickly, finely, but distinctly punctured, the basal segments above less punctured. Wings slightly smoky, with the costa pitchy.

Hab. Dueñas, (Guatemala); O. Salvin, Esq. Brit. Mus.

# Myodites rugosus, sp. nov.

Niger, nitidus. Thorace fortiter crebre punctato, antice linea brevi elevata nitida. Elytris flavis basi maculaque apicali piceis, superne parce obsolete punctatis. Abdomine subtus crebre distincte punctato. 3 Long. 2½ lin.

Head in front impressed on each side; vertex clothed with long pale pubescence, with a slight longitudinal carina. Thorax very strongly and thickly punctured, with a slight

longitudinal carina near the front and on each side of the disk a small smooth spot. Elytra pale yellow, with the base and a spot near the apex pitchy; margins impunctate, the upper surface not very thickly and obscurely punctured. Wings hyaline with the costa only pitchy. The anterior legs are pitchy with the knees paler; the extreme apex of the posterior tibic and of the basal joint of the tarsi and all the claws are reddish testaceous.

Hab. Columbia. Brit. Mus.

## Myodites apicalis, sp. nov.

♀. Niger, subnitidus. Antennis, abdomine pedibusque flavis, femoribus posticis basi piceis; elytris flavo-testaceis. Thorace crebre subtiliter distincte punctulato. Long. 2¾ lin.

Resembles M. subdipterus, but has the forehead more prominent, the thorax more distinctly punctured; the wings relatively shorter, transparent except at the apex where they are pitchy. Head in front very thickly and moderately strongly punctured, slightly concave, with a deep impression between the eyes; above convex with a small obtuse tubercle on the vertex. Thorax very thickly finely but distinctly punctured, especially behind, with five small smooth spots on the upper surface. Elytra pale vellow, truncate at the apex, not very thickly but distinctly punctured above, the sides almost impunctate. Abdomen thickly and somewhat strongly punctured with the basal segments above almost smooth; apical segment black at the tip. Antennæ and legs entirely yellow, except the base of the hind femora which are dark, and the claw joint to all the tarsi which is dusky.

Hab. Bombay. Brit. Mus.

# Rhipidius thoracicus, sp. nov.

Obscure pieeus, crebre punctatus. Thorace, abdominis basi, femoribus flavis. Antennis fuscis, basi obscure testacies. Long.  $2\frac{1}{4}$  lin.

Resembles *K. pectinicornis* but is larger, and besides in coloration differs in having the posterior angles of the thorax more prominent, the surface less densely punctured,

and the legs longer. Head nearly black, rugose. Thorax trapezoidal, much narrowed in front, sparsely punctured on the disk, thickly and not very finely punctured elsewhere; the posterior angles prominent but blunt. Elytra scarcely attenuated towards the apex, which is rounded, the surface very thickly and rugosely punctured. Tibiæ and tarsi fuscous, velvety.

Hab. Java, (J. C. Bowring, Esq.) Coll. Brit. Mus.



Descriptions of three new species of American Cetoniidæ; by OLIVER E. JANSON.

Gymnetis anceps, n. sp. Plate IX., fig. 3.

G. Atra, velutina, capite utrinque, thorace marginibus lateralibus anguste, elytris lateribus apiceque late ochraceis; elytris bicostatis; corpore infra nitido. Long. § 22,  $\ \$ 23 mm., lat. § 10,  $\ \$ 21 mm.

Black velvety and opaque above, shining beneath; a narrow band at the apex, lateral margins of thorax and some small contiguous confluent spots, and a broad marginal band and apex of elytra pale ochreous.

Head coarsely and remotely punctured, clypeus rounded at the sides, margins elevated, apex slightly semicircularly emarginate.

Thorax very remotely punctured, posterior angles rounded, basal lobe short and only partly covering the scutellum.

Scutcllum very acute at the apex.

Elytra finely punctured, the punctures arranged in tolerably distinct rows on the disc, each with two slightly elevated ridges extending from near the base to the apical callus, suture elevated from the middle to the apex.

Pygidium rugose.

Beneath coarsely punctured mesosternal process narrow, obtuse at the apex; abdomen longitudinally impressed; legs punctured, tibite unarmed, intermediate and posterior with a fringe of fine short black hairs, tarsi rather long and slender.

A second specimen which I have before me, and which is evidently the female of this species, differs in its broader and more rounded form, its somewhat shining head and thorax, its bidentate anterior tibiae and unidentate intermediate and posterior tibiae, its shorter antennae and in having all the othreous markings obliterated except a few irregular spots near the sides of the elytra.

Cayenne. Coll. Higgins.

A very peculiar species agreeing in several characters with *Allorhina*, to which genus I should have referred it, but as both sexes are before me, and the male has the clypeus simple, I am constrained to locate it in *Gymnetis*.

# Gymnetis Chontalensis, n. sp. Plate IX., fig. 4.

G. Rufo-brunnea, opaca; thorace elytrisque maculis irregularibus nigris; corpore infra pedibusque nigro-cincreis, opacis. Long. 18-21 mm., lat. 10-12 mm.

Reddish brown, opaque, thorax and elytra with numerous irregular black markings varying in form and size, underside and legs einercous.

Head flat, sparingly punctured, clypeus quadrate, apex entire, slightly rounded and elevated, antennæ pitchy.

Thorax sparingly and finely punctured at the sides, lateral margins nearly straight, posterior angles somewhat acute, basal lobe entirely covering the scutellum.

Elytra sub-truncate behind, sides nearly straight, impunctate, sutural apical angles produced.

Pygidium closely strigose.

Beneath coarsely punctured at the sides, sparsely clothed with very short brown hairs; mesosternal process very obtuse, vertical and with a distinct tooth in front; legs punctured, anterior tibiae with two indistinct teeth, intermediate and posterior tibiae with a fringe of brownish hair.

The female differs from the male in its stronger punctuation, its acutely bidentate anterior tibiæ, and in having the apex of the elypeus, underside and legs shining black,

Chontales, Nicaragua, (E. M. Janson).

Evidently allied to G. schistacea, Burm, (Batesi, Thoms), which it closely resembles in form and in the structure of its mesosternal process; in colour it approaches G. Wollastoni, Schaum.

Euphoria (Erirhipis) Candezei, n. sp. Plate IX., fig. 5.

E. Olivaceo-viridis, nitidissima, capite triangulariter impresso; thorace parce punctata, postice bisinuato. angulis postice rotundatis; elytris parce punctatis, sutura postice elevata; corpore infra argenteo-pilosa. Long. 18-21 mm., lat. 10-12 mm.

Green, very shining with a brownish tinge.

Head coarsely punctured, with a large triangular depression between the eyes divided by a slightly raised longitudinal ridge, clypeus rounded at the sides with the margins elevated and bidentate at the apex, antenna pitchy.

Thorax nearly as broad as the elytra at the base, posterior angles strongly rounded, base trisinuate, sparingly and finely punctured on the disc more coarsely so at the sides.

Scutellum large, impunctate.

Elytra sparingly strewn with shallow punctures arranged here and there in irregular rows on the disc, apex strigose, suture gradually elevated to the apex.

Pygidium circularly strigose, with sparse short hairs.

Beneath strigose and thickly clothed with long silverygrey pubescence at the sides, smooth in the centre: mesosternal process short, dilated and rounded; legs strigose and pubescent, anterior tibia with two acute teeth, intermediate and posterior tibiæ with a fringe of long whitish hairs on their inner edge.

The female is larger and slightly broader in proportion, with the pygidium shorter and semicircularly strigose and the teeth on the anterior tibiæ very acute, in other respects

it appears not to differ from the male.

# 376 Descriptions of three new species of Cetoniidæ.

Central America.

Allied to *E. fulgida*, Fab. and *E. flavo-viridis*, Thoms. A specimen (from Guatemala) of this very distinct species was presented to my father by Dr. Candèze, to whom I have dedicated it, and it was subsequently taken in abundance by my brother, Mr. E. M. Janson, at San Domingo, Chontales, Nicaragua.

# A Revision of the Colcopterous Family Erotylide: by George R. Crotch, M.A.

Subfamily 1. LANGURIDES.

# Pachylanguria. g. n.

(Typ. Paivæ, Woll.)

Antennæ short, reaching to about one half the length of the thorax, joints 2—7 thick, moniliform (the 3rd a little longer than the others), 8—11 compressed, dilated, pubescent, closely adpressed together, forming a club.

Head with the eyes rather flat, extremely finely granulated;

frontal suture obsolete; clypeus emarginate in front.

Thorax broader than long; sides faintly margined; posterior angles produced, acute; base margined, angularly produced in front of the scutellum and very gradually sloped towards the angles; a short impressed line on each side at about one third.

Elytra with the epipleural fold not marked, the reflexed portion sinuate; seven distinct rows of punctures, leaving an

irregularly punctured space at the margin.

Legs short; tarsi dilated; claw-joint long.

Prosternum with a broad, thickly margined process, deeply emarginate at the apex, and not depressed.

Mesosternum convex, apex emarginate; coxal lines abbreviated

but visible.

## Pachylanguria collaris, sp. n.

Subelongata, parallela, cyanea, thorace supra et subtus aurantiaco (prosterno apice nigro); elytris crebre punctulatis, regulariter

punctato-striatis. L. 3 lin. India (Bakewell).

Closely allied to *P. Paivæ*, but narrower, the last three ventral segments with a yellow spot at the sides, and the clypeus not emarginate in front. In fully matured specimens the thorax would probably be marked with black.

# Pachylanguria Paivæ.

Languria Paive, Woll. Ann. N. H. iv. 430 (1859). N. China.

# Pachylanguria metasternalis, sp. n.

Oblonga, crassa, punctulata, cyaneo violacea, thorace lateribus late, metasterno macula laterali, aurantiacis. L. 8½ lin. India (Bakewell).

Body beneath rather obsoletely punctate, sides of mesosternum with a few very deep punctures; prosternum with the process deeply sulcate on each side, apex triangularly emarginate.

## Tetralanguria.

g. n. (typ. splendens, Wied.).

Closely resembling *Pachylanguria*, but with the thorax elongate and with anterior angles well marked, the posterior produced, acute

The species of this genus are extremely variable, and I am not at present prepared to differentiate them. Probably most of those here given will ultimately prove to be varieties of one species.

# Tetralanguria elongata.

Trogosita elongata, Fab., Syst. El. 1. 152 (1801).

This I believe to be a species very common at Penang and Singapore, and of which I have seen numerous examples agreeing with the Fabrician description.

## Tetralanguria splendens.\*

Languria splendens, Wied. Zool. Mag. 11. 46 (1823). Java.

# Tetralanguria tripunctata.\*

Languria tripunctata, Wied. Zool. Mag. 11. 46 (1823). Bengal.

# Tetralanguria pyramidata.

Languria pyramidata, MacL. Ann. Jav. 44 (1825). Java.

Very near T. splendens, Mots. and T. tripunctata, Wied.

## Tetralanguria splendida.

Languria splendens ||, Mots. Schrenck Reise, 11. 242 (1860). Java.

## Tetralanguria angularis.\*

Languria angularis, Mots. Schrenk Reise, 11. 243 (1860). Java.

## Languriosoma.

g. n. (typ. Muhoti, Crotch).

Thorax broad, enlarged in front; elytra with a basal margin; antennæ with a 4-jointed club, 11th joint largest, rounded, the other three produced within; mesosternum very short, ventral process acuminate, coxal lines distinct, parallel, approximate, reaching nearly to the apex of the segment; elytra truncate.

# Languriosoma cardiophoroides, sp. n.

Elongata, cuneiformis, nigra, capite thoraceque (supra et infra) rufis; capite sutura frontali distincta, labro aureo-pubescenti, cum thorace obsolete punctato, hoc antice latiore, lateribus valde reflexis, rotundatis, postice coarctato, angulis paulo productis acutiusculis, basi ægre marginato, ante scutellum triangulariter lobato, utrinque striolato; elytris fortiter punctato-striatis, striis ad apicem obsoletis, interstitiis sublævibus; prosterno lævi; epipleuris parce fortiter punctatis; abdomine parce punctato. L. 5½ lin. Cambodia.

Very like a species of *Elaterida* in form and coloration.

## Languriosoma Mouhoti, sp. n.

Elongata, cuneiformis, nigra, capite, thorace (supra et infra), elytrisque (apice nigra) castaneis; thorace sat fortiter punctato, disco postice linea lævi; elytris fortiter punctato-striatis, striis ad apicem ipsam obsoletis; prosterno, epipleuris abdomineque parce punctatis. L. 4\frac{3}{2} lin. Laos (Mouhot).

Very like L. cardiophoroides, but smaller and differently coloured

#### Languriosoma Brookii, sp. n.

 $L.\ Mouhoti$  simillima, thorace obsolete parce punctato, corpore subtus toto ferrugineo, obsoletissime punctato, femoribusque basi ferrugineis bene distincta. L.  $4\frac{3}{4}$  lin. Sarawak, Borneo (Wallace).

# Languriosoma cyanipennis, sp. n.

Elongata, cuneiformis, nigra, capite thoraceque (supra et infra) rufis, elytris cyaneis; capite sublævi, marginibus frontis elevatis; thorace parce punctato, convexo, lateribus rotundatis, paulo elongato, basi marginato, utrinque strialato; elytris striato-punctatis, striis ad apicem obsoletis, interstitiis lævibus; scutello nigro; prosterni epipleuris, abdominisque lateribus fortius parce punctatis, lineis coxalibus minus bene determinatis. L. 43 lin. Borneo (Wallace).

#### Pentelanguria.

g. n. (typ. elateroides, Crotch).

Antennæ short, stout, joints 1—6 moniliform (3rd longer than the others), 7—11 forming a 5-jointed club, transverse, diluted, last joint broadly rounded. Head with the eyes moderate, finely granulated; front gently convex, suture hardly visible.

Thorax subquadrate, longer than broad; anterior angles prominent, thickened, posterior produced, rather deflexed, acute, not margined; sides straight, margin hardly thickened; base bisinuate,

not margined nor depressed.

Elytra acuminate, with the apex produced, subexcavate within; epipleural fold wanting, closely covered with rows of small punctures.

Prosternum with a broad flat parallel process, margined at the sides and rounded at the apex, fitting into the mesosternum, which is rather elevated and emarginate behind.

Metasternum with an acute triangular emargination behind;

coxal lines abbreviated.

Tarsi not much dilated.

# Pentelanguria elateroides, sp. n.

Æneo-viridis, abdomine (segmentis basi exceptis), femoribus basi, metasternoque plus minusve rubris; capite sparse fortiter, thorace crebre fortiter subrugose punctatis; elytris punctorum scriebus 8—9, intervallis subtilissime punctulatis; thoracis epipleuris valde rugulosis, corpore subtus sparse punctato. L. 7½ lin. India (Bakewell).

#### Pentelanguria notopedalis, sp. n.\*

Viridis, nitidissima, capite thoraceque sparsim fortiter (hoc in lateribus subrugulose) punctatis; elytris confertissime subscriatim punctatis; corpore subtus leviter punctato, rufo-variegato. L. 8 lin. India, Himalayas (Hooker—coll. Janson).

# Oxylanguria.

g. n. (typ. acutipennis, Crotch).

Antennæ rather short, joints 1—6 subequal, moniliform, 7—11 flattened dilated; eyes ovate, not prominent; front slightly margined; mentum transverse, narrow; head angulated on each side for the mandibles; thorax elongate, sides but little rounded, base margined, with a well-marked stria on each side; elytra acuminate, produced externally into a sharp divaricating point, sutural angle dentate. Tarsi broadly dilated. Ventral process acuminate, no coxal line.

# Oxylanguria acutipennis, sp. n.

Viridis, subpurpurea, elongata; capite thoraceque sparsim sat profinde punctatis; elytris profunde striato-punctatis; prosterno lavi; metasterni lateribus abdomineque sat crebre punctatis. L. 6§—8½ lin. Sarawak, Sumatra (Wallace).

The tibiæ are thickly fringed with golden hairs at the apex

within.

## Callilanguria.

g. n. (typ. luzonica, Crotch).

Antennæ short, club very gradual, 7th joint hardly dilated, 3rd not longer than 4th; eyes very finely granulated, sides of front incrassate, clypeus convex; mentum large, pointed in front; mandibles very large, head angulated at the sides to receive them.

Thorax globose; epipleural fold hardly marked; prosternum with the process depressed, truncate; mesosternum depressed in front, apex emarginate, ventral process acuminate, no coxal line. Tarsi very broadly dilated. Elytra obliquely truncate at the apex.

# Callilanguria luzonica, sp. n.

Elongata, acuminata, nigra, thorace, cum epipleuris, rufo, parcissime punctato; elytris viridibus, panctato-striatis. L. 10—11 lin, Luzon.

# Callilanguria Wallacii, sp. n.

Elongata, postice acuminata, lete castaneo-rufa, antennis pedibusque (femoribus basi exceptis) nigris, elytris apice nigrocyaneis; capite thoraceque sublavibus, hoc sine plica epipleurali, basi marginato, haud striato; elytris punctato-striatis, interstitiis levibus; corpore subtus obsolete punctulato. L. 5 lin. Sumata (Wallace).

Elytra truncate, external angle dentate.

# Doubledaya.

White, Proc. Ent. Soc. 1850 XIII.—Trans. Ent. Soc. Ser. 2 II. 2 (typ. viator, White).

Antennæ about as long as the head and thorax, 3rd joint equal to the 2nd, 5—7 subequal, clavate, 8th dilated, triangular, 9th larger than 8th or 10th; head with the eyes prominent, front narrowed, finely margined, clypeus distinct, transverse, deeply emarginate. Thorax convex, longitudinally impressed, base with a stria on each side. Prosternum with a broad truncate process; mesosternum subelongate, grooved in front for the prosternum; ventral process acuminate, no coxal line.

Mentum extremely narrow, transverse, gently emarginate in front.

Tront

## Doubledaya viator.\*

Doubledaya viator, White, Proc. Ent. Soc. 1850 xiii.—Trans. Ent. Soc. Ser. 2 ii. 2 (1852) fig. Madras.

# Doubledaya Whitii, sp. n.

Castanea, nitidissima, antennis pedibusque nigris, femoribus basi intus ferrugineis, pectore infuscato. L.  $8\frac{1}{2}$  lin. Sumatra (Wallace).

Obs. Bohemann—Eugen, Resa. Ins. 212—describes an insect from Manilla under the name of "Doubledaia convexicollis," of which I find no mention in Mr Crotch's MSS.; it cannot, however, be referred to the genus Doubledaya as here defined. E. W. J.

#### Fatua.

Dej. Cat. 454 (1837). (Typ. longicornis, Wied.) [Macromelea, Hope, Col. Man. 111. 190 (1840).]

Antennæ elongate, 3rd joint longest, 8th emarginate at the apex, and forming part of the club, longer than the 9th (in the large species these joints are hardly thickened); thorax elongate, narrowed in front, greatest breadth behind the middle, base coarctate, impressed, with a rounded lobe in the centre; elytra with the epipleural fold distinct, interstices punctate; legs long, tarsi dilated; prosternum produced, sulcate, truncate; ventral process acute, incrassate, no coxal line.

## Fatua longicornis.

Languria longicornis, Wied. Zool. Mag. II. 48 (1823).
Fatua ————, Dej. Cat. 454 (1837).
Macromelea ————, Hope, Col. Man. III. 191, T. III. f. 6 (1840).
Poonalh.

Poonah.

The anterior legs extremely elongate, the antennæ more than half the length of the body.

## Fatua Sealyi, sp. n.

F. longicorni simillima, sed thorace paulo breviore antice latiore, elytris interstitiis distinctius punctatis distincta: an fœmina? L. 10 lin. Madras (Sealy).

# Fatua nigripennis.\*

Languria nigripennis, Wied. Zool. Mag. 11. 48 (1823). Tranquebar.

## Fatua Lambii, sp. n.

F. longicorni similis, sed dimidio minor, elytris fortius punctato-striatis, interstitiis crebrius punctatis differt. L. 8 liu. Penang.

## Fatua Bowringii, sp. n.

F. Lambii simillima, sed paulo minor, thorace breviore basi infuscato, lateribus regulariter rotundatis, antennis brevioribus distincta. L. 7 lin. Cambodia.

#### Fatua crassa, sp. n.

Elongata, crassa, acuminata, nigra, capite thoraceque supra et infra rufo-ferrugineis, elytris cyaneo-nigris; clypeo antice emarginato; thorace elongato, lateribus rotundatis, basi impresso, paulo infuscato; elytris tenue punctato-striatis, interstitiis fere lævibus. L.  $9\frac{1}{2}$  lin. Penang.

Var. minor, interstitiis punctulatis.

Antennæ with the 8th joint longer than the 7th, distinctly triangular, dilated, about equal to the last three.

#### Languria.

 $Latr.\ Hist.\ Nat.\ \mbox{III.}\ \ 209\ \ (1802). \quad \ (Typ.\ \mbox{Mozardi,\ Latr.} = \mbox{rufi-collis,\ Latr.\ ined.})$ 

## A. Species Africanæ.

#### Languria dimidiata.

Languria dimidiata, Guér. Icon. R. A. Ins. 314.

Senegal.

The body beneath is very coarsely punctate throughout. Antennæ with the base red, 8th joint scarcely dilated, 9—11 forming a loose little marked club.

#### Languria africana.\*

Languria africana (Chev.), Guér. Icon. R. A. Ins. 314. Senegal.

# Languria semiflava.\*

Languria semiflava, Thoms. Arch. Ent. 11. 236. Gaboon,

# Languria rufopartita.\*

Languria rufopartita, Thoms. Arch. Ent. 11. 236. Gaboon.

# Languria promontorii, sp. n.

 $L.\ formose$  affinis, sed minor, capite rufo, thorace minus convexo, lateribus fere rectis, striola basali longiore, elytris æqualiter punctato-striatis, obscure viridibus (humeris obscure rufis) pedibusque rufis distincta videtur. L.  $2\frac{1}{4}$  lin. Cape of Good Hope, Guinea.

# Languria formosa, sp. n.

Elongata, parallela, rufo-ferruginea, capite femoribusque (basi excepto) nigris, elytris viridi-cyaneis, dimidio apicali læte purpureis; capite profunde parce punctato; thorace parce punctato, subquadrato, convexo, postice angustato, coarctato, basi transversim impresso, utrinque striola abbreviata, ante scutellum rotundato producto, angulis posticis acutiusculis; elytris basi profunde punctato-striatis, striis integris sed apicem versus minus fortiter punctatis, interstitiis lævibus. L. 3 lin. Cape of Good Hope.

Antennæ with the 8th joint very little enlarged, the club lax,

11th joint largest, rounded.

# Languria illætabilis.\*

Languria illetabilis, Pasc. Journ. Ent. 1. 131, T. v. f. 4 (1860). Natal.

Probably not a veritable Languria.

## Languria pulchella.\*

Languria pulchella, Pasc. Journ. Ent. 1. 132. Natal.

Probably a distinct genus.

#### B. Species Americanæ.

# Languria bicolor.

Tregosita bicolor, Fab. Ent. Syst. Supp. 50 (1798).

Languria —, Crotch, Tr. Am. Ent. Soc. 1873, 349.

—— thoracica, Oliv. Ent. v. 463, T. 1. f. 1 (1807).

—— Lec. Proc. Phil. VII. 158.

Var. puncticollis, Say, J. Phil. III. 462.

—— Lec. Pr. Phil. VIII. 159.

Southern States.

Distinct by the 6-jointed club of antennæ.

# Languria Mozardi.

# Languria cyanipennis, sp. n.

L. Mozardi affinis, sed major, thorace magis crebre sed minus fortiter punctulato, basi ante scutcllum paulo lobato. L.  $4\frac{1}{2}$  lin. Mexico.

# Languria discoidea.

Languria discoidea, Lec. Proc. Phil. VII. 160.
Georgia., Crotch, Tr. Am. Ent. Soc. 1873, 350.

## Languria tædata.

# Languria angustata.\*

## Languria sellata, sp. n.

L. angustate proxima, sed capite, pedibus, antennisque rufis, his clava infuscata; elytris cyaneis fascia rufa pone medium. L.  $3\frac{1}{2}-4$  lin. Mexico.

## Languria convexicollis.\*

#### Languria læta.

Languria leta, Lec. Proc. Phil. vii. 159 (1854).
————, Crotch, Tr. Am. Ent. Soc. 1873, 351.
Kansas River, Colorado, Texas.
Distinct by the punctate interstices of the elytra.

# Languria Lecontei.\*

Languria Lecontei, Crotch, Tr. Am. Ent. Soc. 1873, 351. Illinois.

#### Languria sanguinicollis.

Languria sanguinicollis, Chev. Col. Mex. iv. 99 (1834). Mexico.

#### Languria collaris.\*

Languria collaris, Lec. Proc. Phil. VII. 159. \_\_\_\_ , Crotch, Tr. Am. Ent. Soc. 1873, 351. Georgia.

## Languria femoralis.\*

Languria femoralis, Mots. Schrenck Reise, 1, 242. \_\_\_\_, Crotch, Tr. Am. Ent. Soc. 1873, 352. New Orleans.

#### Languria gracilis.

Languria gracilis, Newm. Ent. Mag. v. 390 (1838). \_\_\_\_\_, Crotch, Tr. Am. Ent. Soc. 1873, 351. ---- bicolort, Latr. Gen. Crust. III, 65, T. XI. f. 11 (1807). \_\_\_\_\_ Latreillei, Lec. Pr. Phil. vii. 160 (1854). ——— nigriceps, Mots. Schrenck Reise, 242 (1860). var. Languria inornata, Rand. Bost. Journ. 11. 48. var. - obscura, Mots. Schrenck Reise, 243 (1860). Middle, Southern, and Western States. No doubt can exist as to the application of Newman's name.

#### C. Species Indo-Malayanæ.

# Languria rufipes, sp. n.

L. Giloloæ proxima et forte varietas, sed capite pedibusque obscure rufis, elytrisque interstitiis distinctius punctulatis differt. L.  $4-5\frac{1}{2}$  lin.

Morty (Wallace).

## Languria Giloloæ, sp. n.

Elongata, sub-acuminata, nigra, elytris cyaneis, punctato-striatis, interstitiis subseriatim punctatis. L. 4½-5½.

Gilolo (Wallace).

Antennæ with the club abruptly 4-jointed, front with the sides margined, thorax longer than broad, globose in front, very obsoletely punctate, base coarctate, striolæ very short, abbreviate, intermediate space with a few deeper punctures.

# Languria papuensis, sp. n.

Elongata, postice paulo acuminata, nitida, nigra, capite thoraceque (supra et infra) rufis, elytris nigropurpureis, punctatostriatis, striis ante apicem evanescentibus, interstitiis lævibus. L.  $5\frac{1}{4}$  lin.

Dorey (Wallace).

Antennæ with a compressed 3-jointed club, 4th joint slightly dilate, frontal suture distinct, lateral margins elevated, visible behind the eyes; head and thorax finely and sparingly punctate, the latter a little longer than broad, sides rounded, base coarctate, striolæ short, straight, intermediate space hardly punctate, basal lobe large.

# Languria coarctata, sp. n.

L. papuensi structura simillima, sed minor, thorace paulo breviore, basi punctis majoribus impresso, capite nigro, elytrisque fortius punctato-striatis, interstitiis seriatim punctatis. L. 4 lin.

Macassar (Wallace).

#### Languria nigrocyanea, sp. n.

Elongata, postice angustata, tota nigrocyanea, elytris punctatostriatis interstitiis sublavibus. L.  $4\frac{1}{2}$  lin.

Tonda.

Antennæ with an abrupt 4-jointed club, the last joint large and rounded, frontal suture distinct, head not very strongly punctate; eyes extremely finely granulated, thorax clearly longer than broad, convex in front, with a double punctuation, the fine punctures rather obsolete, basal striæ short, the interval with a few deep punctures.

#### Languria menadensis, sp. n.

Elongata, postice acuminata, læte ferruginea, antennis (basi excepta) geniculisque nigris, elytris viridibus, punctato-striatis interstitiis subseriatim punctatis. L. 3 lin.

Menado (Wallace).

Antennæ with a distinct 4-jointed club, frontal suture distinct, clypeus broad, sparsely punctate, head sparingly punctate; thorax very obsoletely punctate, longer than broad, convex in front, coarctate behind, basal impression impunctate, striole well marked; scutellum reddish, elytra margined at the base.

#### Languria barbara, sp. n.

Elongata, rufa, nitida, antennarum clava geniculisque nigris, elytris cyaneis punctato-striatis, interstitiis sublævibus. L.  $3\frac{1}{2}$  lin.

Macassar (Wallace).

Antennæ with a rather lax 3-jointed club, the 8th joint slightly dilated, 3rd not longer than the 4th; frontal suture visible, sides margined, head strongly punctate; thorax a little longer than broad, disc coarsely, sides obsoletely punctate, base coarctate, the striolæ well marked, diverging, the intermediate space covered with deep coarse punctures.

#### Languria propinqua, sp. n.

L. barbaræ valde affinis sed pedibus corporeque subtus nigris, antennis clava distincte 4-articulata, articulo  $7^{\circ}$  paulo dilatato distinctá. L.  $3\frac{1}{4}$  lin.

Sumatra (Wallace).

# Languria tarsata, sp. n.

Cuneiformis, niger, capite thoraceque (supra et infra) rufis, elytris cæruleis punctato-striatis, interstitiis vix punctulatis. L.  $4\frac{1}{9}$  lin.

Čeram (Wallace).

Antennee with a compressed 4-jointed club, 7th joint slightly dilated; frontal suture distinct, the margin from the clypeus to the eyes strongly incrassate, sides of the head angulate for the base of the mandible; thorax very sparingly punctate, hardly longer than broad, convex, gradually narrowed towards the base, which is impressed and striolate, scutellum reddish, tarsi largely dilated.

# Languria nitidior, sp. n.

Subcuneiformis, rufoferruginea, nitidissima, antennis nigris, elytris cyaneis, subtilius punctato-striatis, interstitiis subtilissime uniseriatim punctulatis. L.  $3\frac{3}{4}$  lin.

Penang, Singapore (Wallace).

Antenne with a compressed 5-jointed club; frontal suture well marked, head very sparingly punctate; thorax quadrate, convex, sides rounded, coarctate behind, posterior angles acute, base striolate, very sparingly punctulate, scutellum red; coxal lines parallel, elongate.

#### Languria Cambodiæ, sp. n.

Elongata, parallela, nigra, capite thoraceque (supra et infra) rufis, elytris viridibus fortius punctato-striatis, interstitiis lævibus. L.  $5-5\frac{1}{2}$  lin.

Laos, Cambodia.

Antennæ with a lax 4-jointed club, dentate within, the 7th joint slightly dilated, 3rd longer than the 4th. Frontal suture well marked, elypeus and head strongly punctate, eyes not margined by the raised side of the front; thorax ½ longer than broad, narrowed behind, coarsely punctate on the disc, base compressed, with a long stria on each side; coxal lines parallel, elongate.

# Languria scutellata, sp. n.

L. Cambodiæ persimilis, sed minor, corpore subtus, scutelloque rufis, thorace lateribus magis parallelis.

Sumatra (Wallace), Cambodia.

# Languria Æoloides, sp. n.

Cuneiformis, ferruginea, antennis, geniculis late, thoracisque vitta discoidali nigris; elytris cyaneis. L. 3 lin.

Sarawak (Wallace).

Antennæ with a gradual 5-jointed club, reaching almost to the base of the thorax; frontal suture visible, head sparingly punctate, thorax clearly punctate, longer than broad, sides subparallel, base transversely impressed, striolate; elytra striatepunctate, interstices very finely punctulate.

In form very like a species of Æolus.

# Languria cuneiformis, sp. n.

Cuneiformis, pallide ferruginea, capite, antennis, pedibus, segmentoque ultimo ventrali nigris : elytris læte cæruleis. L. 4 lin.

Sarawak (Wallace).

Antennæ short with a well-marked club of 5 joints, flattened largely dilated, transverse. No frontal suture, head sparingly and strongly punctate, thorax quadrate, convex, sides strongly rounded, anterior angles deflexed, posterior acute, base sinuate, striolate on each side; obsoletely punctate; elytra striatepunctate, interstices visibly punctate; coxal lines approximate parallel, reaching almost to the end of the segment.

This is the only species with the head black in this division.

# Languria Lewisii.

Languria Lewisii, Crotch, Ent. Mo. Mag. 1x. 184. Kawachi, Nipon.

### Languria unicolor.\*

Languria unicolor, Mots. Bull. Mosc. XXXIX. 176. — , Crotch, Ent. Mo. Mag. 1x. 184. Japan.

### Languria nigripes.

Languria nigripes, Crotch, Ent. Mo. Mag. 1x. 184. Japan, China,

# Languria præusta.

Languria præusta, Crotch, Ent. Mo. Mag. 1x. 185. China, Japan.

## Languria atriceps.

Languria atriceps, Crotch, Ent. Mo. Mag. IX, 185. Japan, Nagasaki,

# Languria ruficeps.

Languria ruficeps, Crotch, Ent. Mo. Mag. 1x. 185. Japan, China.

# ? Languria Jansoni.

? Languria Jansoni, Crotch, Ent. Mo. Mag. 1x. 185. Japan.

# Languria prætermissa.\*

Languria pretermissa, E. W. Jans. Ent. Mo. Mag. 1x. 186. Japan, Hiogo.

# Languria nigritarsis.\*

Languria nigritarsis, C. O. Waterh. Ent. Mo. Mag. 1x. 186. N. Japan, Awomori Bay.

# Languria pectoralis.\*

Languria pectoralis, C. O. Waterh. Ent. Mo. Mag. 1x. 187. Japan, Hakodaté.

# Languria Waterhousii.\*

Languria convexicollis, C. O. Waterh, Ent. Mo. Mag. 1x. 187 (1873). [nec. Horn (1868).]
Japan, Hakodaté.

#### SPECIES INCERTÆ.

#### Languria nepalensis.\*

Languria nepalensis, Hope, Gray Zool. Misc. 22. Nepal.

# Languria cyanea.\*

Languria cyanea, Mots. Schrenck Reise II. 243. Nepal.

# Languria rufotestacea.\*

Languria rufotestacea, Mots. Schrenck Reise II. 242. Batavia (? L. testacea, MacL.).

# Languria flava.\*

Languria flava, Mots. Schrenck Reise 11. 242. Birma.

### Languria bifasciata.\*

Languria bifasciata, Mots. Schrenck Reise II. 241. Tranquebar.

# Languria cœruleipennis.\*

Languria cœruleipennis, Mots. Schrenck Reise II. 241. Ceylon.

# Languria collaris.\*

Languria collaris (De Haan), Mots. Schrenck Reise II. 241. Java.

# Languria nigriventris.\*

Languria nigriventris, Mots. Schrenck Reise II. 241. Ceylon.

# Languria fulvipes.\*

Languria fulvipes, Mots. Schrenck Reise II. 241. India or.

# Languria chalybeipennis.\*

Languria chalybeipennis, Mots. Schrenck Reise II. 241. Birma.

# Languria minima.\*

Languria minima, Mots. Schrenck Reise II. 241. Ceylon. (Very near L. parvula, Wied.)

# Languria Menetriesii.\*

Languria Menetriesii, Mots. Schrenck Reise II. 240. Siber. or. (Amur.)

### Languria filiformis.\*

Trogosita filiformis, Fab. Syst. El. 1. 152. Sumatra.

# Languria potatoria.\*

Languria potatoria, Wied. Zool. Mag. 11. 45. Sumatra,

### Languria nigrina.\*

Languria nigrina, Wied. Zool. Mag. 11. 47. Java.

# Languria parvula.\*

Languria parvula, Wied. Zool. Mag. 11. 47. Bengal.

# Languria testacea.\*

Languria testacea, MacL. Ann. Jav. 45. India, Java.

# Languria morio.\*

Languria morio, MacL. Ann. Jav. 45. Java.

# Languria intermedia.\*

Languria intermedia, Boh. Eug. Resa. Ins. 212 (1859). Malacca.

# Langurites.

Mots. Schrenck Reise II. 243. (Typ. lineata, Lap.)

Antennæ with a 5-jointed club, the 3rd joint elongate; eves oval finely granulated; thorax elongate, base impressed but with no stria; elytra with the apex produced, obliquely truncate; no coxal line; head without stridulating plate on the occiput,

### Langurites lineata.

Languria lineata, Lap. Ann. Fr. 1. 412 (1832).

scapularis, Chev. Col. Mex. III. 9 (1834).

Langurites vitticollis, Mots. Schrenck Reise, II. 243 (1860).

vittatus, Mots. l.c. 243.

infuscatus, Mots. l.c. 243.

Mexico, Central America, Venezuela, Columbia.

This species is very variable in colour.

# Langurites ventralis.

Languria ventralis, Chev. Col. Mex. IV. 95. Mexico (Orizaba).

This seems to be a variety of L. lineata in which the thorax is entirely æneous; and a specimen (unnamed) in Chevrolat's collection which agrees well with this description, is to be referred to that species. The type itself is apparently lost. The specimen named ventralis in Reiche's collection was a Trapezidera.

# Langurites verticalis.\*

Languria verticalis, Eric. Arch. f. Nat. XIII. 181. Peru.

#### Tranezidera.

Mots. Schrenck Reise, II. 244 (typ. augusticollis, Mots.).

Antennæ with a 5-jointed club, 3rd joint scarcely longer than 4th; thorax very elongate, base margined, deeply sinuate on each side, the marginal line nearly straight, thus leaving a produced triangle in front of the scutellum; elytra separately rounded at the base, the apex rounded, denticulate; no coxal line; head without stridulating plate, with a lateral impressed line between the eyes.

### Trapezidera prolongata, sp. n.

Elongata, postice angustata, tota ænea, nitida, ubique subtilissime alutacea, parce subtiliter punctulata, elytris obsolete subseriatim punctulatis. L. 9 lin.

Nicaragua.

var.? mexicana. Smaller, thorax hardly visibly, elytra more strongly punctulate. L. 7 lin.

Mexico.

# Trapezidera chalcea, sp. n.

T. prolongatæ affinis, sed minus elongata, humeris latioribus, postice acuminata, thorace basi fere truncato (in medio producto), sat crebre punctulato; elytris punctatostriatis, interstitiis crebre punctulatis; pedibus plus minusve æneo-rufis. L. 6-7 lin.

Mexico.

# Trapezidera ænea, sp. n.

Elongata, ænea, postice acuminata, thorace elongato-quadrato, crebre punctulato, basi utrinque sinuato, medio paulo producto, striola abbreviata utrinque impresso; elytris crebre punctatis, seriebus punctorum vix distinctis; abdomine subtus rufo-æneo. L. 6—6½ lin.

Mexico.

Differs by the broader form, acuminate behind, and the basal stria on the thorax; the median lobe is very little marked.

#### Trapezidera angusticollis.\*

Trapezidera angusticollis, Mots. Schrenck Reise, 11. 244. Central America.

### Trapezidera brunnipes.\*

Trapezidera brunnipes, Mots. Schrenck Reise, 11. 244. Central America.

# Trapezidera longicollis.\*

Trapezidera longicollis, Mots. Schrenck Reise, 11, 244. Nicaragua.

# Trapezidera dilaticollis.\*

Trapezidera dilaticollis, Mots. Schrenck Reise, 11. 244. Nicaragua.

### Trapezidera brunneiventris.\*

 $Trapezidera\ brunneiventris,\ Mots.\ Schrenck\ Reise,\ H.\ 244.$  Nicaragua.

# Trapezidera porrecta.\*

Languria porrecta, Kirsch, B. E. Z. x. 214. Bogota.

# Trapezidera andigrada.\*

Languria andigrada, Kirsch, B. E. Z. x. 215. Bogota.

## Teretilanguria.

g. n. (typ. Kirschii, Crotch).
[Goniocephala, Chev. Dej. Cat. pars.]

Antennæ with a 5-jointed compressed club; elytra rounded and denticulate at the apex; thorax not margined at the base, a small stria on each side; head with the occiput with two stridulating plates, frontal suture well marked, emarginate.

### Teretilanguria Kirschii, sp. n.

Elongata, postice acuminata, tota ænea, vel viridi-ænea; capite parce punctato, lineis lateralibus impressis parallelis; thorace parce punctato, antice angustiore, angulis posticis productis, acutis, basi utrinque sinuato; elytris obsolete seriatim punctatis; abdomine subtus parce punctulato, prosterno rugoso. L. 11 lin.

Bogota, abundant.

The body is sometimes more or less red beneath.

### Teretilanguria Panamæ, sp. n.\*

T. Kirschii valde affinis, sed thorace antice paulo latiore, angulis anticis incrassatis, capite antice fortius punctato, lineisque frontalibus minus parallelis distincta videtur.

Panama (Janson).

### Teretilanguria basalis.

Languria basalis, Guér. Icon. R. A., Ins. 314.

Columbia (Guérin).

Thorax distinctly punctate, base deeply bisinuate; metasternum and ventral segments more or less æneous.

#### Goniolanguria.

g. n. (typ. latipes, S. Saund.).

[Goniocephala, Chev. Dej. Cat. pars.]

Elytra produced at the apex, slightly divaricating, denticulate; thorax margined at the base, with a small stria on each side; head with the sides angulated for the very large mandibles, occiput with one stridulating series; antennæ with a 5-jointed club; tarsi very broadly dilated.

# Goniolanguria latipes.

Languria latipes, S. Saund. Tr. Ent. Soc. 1. 149. T. XIV. f. 1. Montevideo.

This species is exceedingly variable in colour, being either brilliant purple, green or bronzed; I have specimens from Cayenne, New Granada, and Brazil, and a closer examination than I can now devote to them might probably eliminate several very closely allied species.

### ? Goniolanguria Reichii, sp. n.

Valde elongata, postice angustata, tota ferruginea, elytris (basi excepta) nigro-aneis; thorace elongato, antice angustato, lateribus postice rectis, basi bisinuato, in medio transverse impresso, fovea utrinque in striola desinente; elytris sat fortiter punctato-striatis (striis apicem versus obsoletis) interstitiis fere lævibus; pedibus ferrugineis, tibiis æneis. L. 7 lin.

Brazil.

This differs by not having the tarsi dilated and by the basal impression of the thorax.

### Ortholanguria.

g. n. (typ. Batesii, Crotch).

Cylindrical, parallel; head destitute of stridulating organ; antennæ with a 4-jointed club; thorax elongate, base margined; elytra with the apex truncate, denticulate, sutural angle acute.

# Ortholanguria Batesii, sp. n.

Cylindrica, parallela, ferruginea, elytris segmentisque ventralibus 2—5 viridi-æneis; capite thoraceque obsolete punctulato, hoc angulis posticis acutis, basi utrinque profunde sinuato, latius marginato, elytris parallelis obsoletissime seriatim punctatis, vage obsoleteque rugulosis; abdomine subtus punctulato, segmento ultimo emarginato. L. 7½ lin.

Ega (Bates), Cayenne.

# Ortholanguria concolor, sp. n.

 Batesii valde affinis, sed capite thorace distincte punctatis, colore tota viridiænea distincta.

New Granada.

#### Cladoxena.

Mots. Bull. Mosc. xxxix. 428 (1866). (Typ. rufipes, Mots.)

# Cladoxena rufipes.\*

Cladoxena rufipes, Mots. Bull. Mosc. XXXIX. 429 (1866). Nura Ellia, Ceylon.

# Cladoxena picipes\*.

Cladoxena picipes, Mots. Bull. Mosc. XXXIX. 429 (1866). Nura Ellia, Ceylon.

Subfamily 2. Erotylides.

Tribe 1. DACNINL

#### Dacne.

Latr. Préc. 12 (1796). (Typ. humeralis, Fab.)
[Engis Payk. (1800), Lacord. Bedel.]

Maxillary palpi with the last joint oval, tarsi visibly 5-jointed; antennæ with the 1st joint dilated, 3rd elongate; thorax with the base margined; elytra seriate punctata.

#### Dacne notata.

Silpha notata, Gmel. Syst. Nat. 1617 (1788). Ips bipustulata||, Fab. Mant. 45 (1787). Engis bipustulata, Bedel, Abeille, v. 8. Sweden, Germany, Austria.

# Dacne quadrimaculata.

Ips quadrimaculata, Say, Bost. J. N. H. 1. 169 (1835). Dacne quadrimaculata, Crotch, Trans. Amer. Ent. Soc. 1837, 352. United States, Louisiana.

# Dacne pontica.\*

Engis pontica, Bedel, Abeille, v. 9. Batoum (Reiche).

#### Dacne californica.\*

Engis californica, Horn, Trans. Amer. Ent. Soc. 1870, 97.

Dacne — , Crotch, Trans. Amer. Ent. Soc. 1872, 352.
California.

# Dacne japonica.\*

Dacne japonica, Crotch, Ent. Mo. Mag. 1x. 188. Japan.

### Dacne picta.

Dacne picta, Crotch, Ent. Mo. Mag. 1x. 188. Japan.

## Dacne æquinoctialis.\*

Engis equinoctialis, Thoms. Arch. Ent. 11. 235.

I have great hesitation in referring this insect to the present genus; I have a species from the Cape (*Engis capensis*, Dj.), which is certainly not a true *Dacne*.

#### Dacne rufifrons.

Tritoma rufifrons, Fab. Syst. Ent. 68 (1775). Engis rufifrons, Bedel, Abeille, v. 10. England, Sweden, France, Germany, Austria.

### Dacne bipustulata.

Ips humeralis, Fab. Mant. 45 (1787).

Engis humeralis, Bedel, Abeille, v. 10.

Sweden, England, France, Germany, Austria, Italy, Batoum, Cancasus.

# Dacne capensis, sp. n.

Subovata, postice acuminata, nigra, nitida, antennis (clava picea) pedibusque obscure rufis; capite parce punctato, clypeo obscure rufo; thorace fortius punctato, subtransverso, lateribus marginatis, rectis, basi immarginato, utrinque oblique truncato; elytris punctato-striatis, interstitiis parcissime punctulatis; abdomine subtus tenue pubescente, fortiter punctato, præsertim lateribus, linea coxali distincta fere marginem attingente; metasterno obsoletissime, lateribus episternisque profunde grosse punctatis, linea coxali distincta; mesosterno transverso, prosterno triangulariter elevato, lateribus marginatis, postice infra coxas truncato,

antice acuminato, epipleuris profunde punctatis; capite subtus lateribus punctatis, antennis articulo 2 globoso, 3 elongato, clava 3-articulata. L. 2 lin.

Natal

#### Combocerus.

Bedel, Abeille, v. 12 (typ. glaber, Schall.).

Differs from *Dacne* by the antennæ with the 3rd joint equal to the others; tarsi with the 4th joint nodiform; elytra clearly punctate-striate; mesosternum carinate.

### Combocerus glaber.

Silpha glabra, Schaller, Act. Hal. 1. 255 (1783). Ips sanguinicollis, Fab. Mant. 45 (1787). Combocerus sanguinicollis, Bedel, Abeille, v. 13. Sweden, France, Germany.

#### Pseudodacne.

g. n. (typ. admirabilis, Crotch).

Head with the eyes coarsely granulated, antennæ inserted under the front, 1st joint very large, dilated, forming a cap to the eyes, 3rd very long, 4—9 small, moniliform, 10—11 very broad, flattened, sub-oblique; prosternum not margined, hardly produced between the coxæ, which are distinctly closed; mesosternum broad, subtransverse; metasternum short, episterna narrow; abdomen with the ventral process very broad, truncate; no coxal line; tarsi with the claw-joint longer than the rest, 3rd not emarginate. In habit very like Dacne.

#### Pseudodacne admirabilis, sp. n.

Subovata, convexa, antice posticeque acuminata, antennis pedibusque ferrugineis, capite thoraceque antice obscure rufis; illo crebre, hoc parcius punctulatis, basi lobato; elytris punctatostriatis, interstitiis evidentius punctulatis, singulo maculis 2 magnis rufis (1 humerali, 1 subapicali). L. 13 lin.

Sarawak (Wallace).

#### Thallis.

Eric. Arch. f. Nat. VIII. 237 (typ. ——?)

Antennæ with the 3rd joint equal to the 4th, club loose, perfoliate; thorax margined at the base; elytra with a scutellar abbreviated stria; anterior coxæ rather approximated; 1st ventral segment with coxal line. Eyes coarsely granulated. Mentum triangularly acuminate.

#### Thallis compta.

Thallis compta, Eric. Arch. f. Nat. VIII. 238.

Tasmania, Adelaide, Sydney, Madagascar (?)

Abdomen pubescent, sides sparingly and deeply punctate; coxal line very short and slight; metasternum black, sides deeply, disc lightly punctured, canaliculate, apex depressed, prosternum very coarsely punctate, process convex, rounded.

#### Thallis vinula.

Thallis vinula, Eric. Arch. f. Nat. VIII. 238.

Tasmania, Melbourne.

Elytra with a scutellar stria; abdomen sparingly, sides deeply, punctate; coxal line visible; metasternum with the sides deeply punctate; prosternum deeply punctate, the intercoxal process quadrate, truncate.

# Thallis janthina.

Thallis janthina, Eric. Arch. f. Nat. VIII. 238.

Tasmania, Sydney, Rockhampton.

Eyes less coarsely granulated, above very sparingly clothed with extremely fine hair-like seta; these exist also in T. compta, but are scarcely perceptible.

### Thallis nigroænea, sp. n.

Oblonga, nigro-ænea, alutacea, nitida, brevissime setulosa; capite thoraceque parce punctulatis, hoc lateribus marginatis, rectis, basi utrinque sinuato; elytris seriatim punctatis, interstitiis punctulatis; abdomine subtus pubescente, alutaceo, parce punctulato; linea coxali distincta; metasterno parce punctulato, canaliculato, antice truncato; prosterno lavi, processu rotundato. L.  $2\frac{1}{4}$  lin.

N. Caledonia.

Eyes coarsely granulated; antennæ with the 3rd joint subelongate.

# Thallis (?) bifasciata, sp. n.\*

Nigra, fortiter punctata, brevissime setulosa; thorace quadrato, angulis anticis deflexis; scutello parce punctulato; elytris punctato-striatis, interstitiis parce uniseriatim punctulatis, rufis, macula quadrata scutellari, fascia media, alteraque apiculi nigris (apice ipso rufo). L. 2 lin.

Rockhampton (Janson).

Abdomen finely punctate, coxal line evident, metasternum finely (sides coarsely) punctate, sulcate behind; mesosternum depressed; prosternum with the process narrow, parallel, margined,

in front and at the sides coarsely, punctate; head grooved beneath, coarsely punctate; antennæ, with the 3rd joint slightly longer than the 4th.

### Thallis? Erichsoni, sp. n.

Nigra, subelongata, aureo-pubescens, capite thorace subrugose punctatis scutello rugoso; elytris punctato-striatis interstitiis seriatim punctatis, nigris, fascia basali (macula scutellari includente), altera pone medium, alteraque subapicali interruptis, rufis; corpore subtus profunde punctato. L. 2<sup>+</sup><sub>3</sub> lin.

Sydney (Chapuis).

Kather intermediate between the typical Thallis and T. insueta. The scutellar stria is present, the 3rd joint of the antenne subclongate, the mentum normal. Abdomen punctulate, pubescent, coxal line obsolete; metasternum punctulate, sides deeply punctate, canaliculate, depressed Lehind in the middle; mesosternum depressed for the prosternum which is narrow, and pointed behind, the anterior part is rugosely punctate; head with a transverse furrow, coarsely punctate all over.

### Thallis? Wallacii, sp. n.

Oblonga, rufo testacea, nitida, glaberrima, capite postice obscuriore, cum thorace parce punctato, hoc lateribus crasse, basi tenuiter marginatis, ante scutellum lobato; scutello lævi; elytris punctato-striatis, intersfitiis parcissime punctulatis, flavo-testaceis, basi vage nigropicea, fascia pone medium lata, apiecque nigris (apice ipso vage rufo); subtus testacea, abdomine subtiliter punctato, medio fere lævi, pubescente, segmento 1º linea abbreviata coxali, metasterno sublævi, prosterno punctis paucis profunde impressis, processu quadrato, in medio acuminato-producto. L. 1½ lin.

Aru Isl. (Wallace).

Antenna with the 3rd joint short, eyes very coarsely granulated, mesosternum depressed, short, so that the prosternum reaches the metasternum.

#### Thallis polita.

Engis polita, White, Zool, Ereb, and Terr. Ins. 18.

Oblonga, nigro-subænea, autennis pedibusque ferrugineis; capite thoraceque fortius punctato, hoc lateribus subtiliter marginatis, busi impresso, tenuiter marginato, ante scutellum late lobato; elytris tenuissime setosis, subtiliter seriato-punctatis, interstitiis punctulatis, circa scutellum confuse punctatis; abdomine subtus pubescente, vix punctulato, linea coxali tenui, valde abbreviato, metasterno punctulato, mesosterno tranverse in medio depresso, prosterno processu quadrato, punctis paucis impresso. L. 2½ lin.

Port Nicholson, New Zealand (Parry).

Antennæ with the 3rd joint short, club loose, perfoliate, eves not very coarse.

### Thallis? insueta, sp. n.

Obscure rufo-fulva, aureo-pubescens, fortiter punctata; capite postice nigro; thorace transverso, lateribus fortiter reflexis, basi marginato plus minusve nigro; elytris basi profunde punctato striatis, apice subtilius, interstitiis sat crebre evidenter punctulatis, stria scutellari abbreviata, nigris, macula basali subapicalique obscure rufis; abdomine subtus subtiliter meta- et prosterno profunde punctatis. L. 3\frac{1}{2} lin.

Queensland, Rockhampton (Janson).

Abdomen finely punctured, coxal line evident; metasternum finely, sides coarsely punctured; mesosternum depressed; prosternum hardly prominent beyond the coxe, anterior part and side pieces very coarsely punctate; head deeply grooved beneath, sides punctate, mentum acutely triangular in front, maxillary palpi very large, securiform; antennæ with the 3rd joint subclongate, club loose, perfoliate.

#### Thallis xanthosticta, sp. n.

Oblonga, parallela, nigrocyanea, subtus nigra, nitida, antennis rufo-ferrugineis, pedibus piceis; capite thoraceque parce punctatis, hoc angulis anticis deflexis, lateribus crasse marginatis, basi sat fortiter marginato, subsinuato; elytris punctato-striatis, interstitiis parce subtilissime punctulato, maculis rufo-fulvis, 1 obliqua humerali, I subapicali; abdomine subtus pubescente, parce punctulato, linea coxali sat distincta, processu ventrali acuminato; metasterno canaliculato, vix punctulato; prosterno sublevi, processu crasse marginato, apice leviter acuminato. L. 23-3 lin.

Antennæ with the 3rd joint barely longer than the 4th, 8-11 slightly dilated, forming a 4-jointed club.

### Thallis indica, sp. n.

Elongato-ovata, postice angustata, tota rufo-testacea; capite fortiter punctato, clypeo emarginato; thorace leviter transverso, fortiter punctato, basi marginato, utrinque sinuato; elytris basi fortiter, apice subtilius punctato-striatis, interstitiis evidentius subscriatim punctulatis, stria abbreviata scutellari confusa; abdomine subtus tenui pubescente, punctulata, linea coxali fere marginem attingente; metasterno parce punctato, linea coxali abbreviata; mesosterno transverso, profunde punctato, antice excavato; prosterno punctato, processu truncato, epipleuris rugosis; capite subtus punctato, vix impresso, antennis brevibus, articulo 3º secundo et quarto distincte longiore. L. 21 lin.

India.

#### Thallis rubicunda.

Triplax rubicunda, Lac. Erot. 207.

Madagascar.

Abdomen with the coxal line distinct; mesosternum depressed; prosternum with the coxal process rather narrow, parallel, margined; eyes somewhat coarsely granulated; legs long.

# Thallis (?) humeralis, sp. n.

Elongata, nigra, elytris nigrocyaneis macula humerali rufa, pedibus rufo-piceis; capite plano, parce fortius punctato; thorace transverso-quadrato, obsolete punctato, basi marginato, fovea utrinque punctis majoribus impressis, serieque utrinque in disco punctorum majorum; scutello lævi; elytris punctulatis, obsolete seriatim punctatis; abdomine subtiliter punctulato, linea coxali distincta; metasterno vix punctulato, canaliculato, linea coxali nulla; mesosterno oblongo, lævi, marginato, postice subacuminato; prosterno profunde parce punctato, processu oblongo, lateribus marginatis, postice truncatis; capite subtus impresso, punctulato, mentum trapezoidali, antennæ brevibus, articulo tertio quarto æquali. 11º maxinno. L. 2.3 lin.

Waigiou (Wallace).

Differs from typical Thallis by the smooth underside, and the oblong mesosternum.

# Thallis (?) mycetocharoides, sp. n.

Subelongata, nigra, nitida, elytris singulo punctis 2 aurantiacis (1 humerali, 1 fere ad apicem), ore, pedibus corporeque subtus rufo-piceis; capite parce punctato, clypeo emarginato; thorace transverso, parce punctato, lateribus rotundatis, angulis anticis deflexis, incrassatis, basi tenue marginato, ante scutellum rotundato-producto; scutello subtransverso lavi; elytris basi vix marginatis, lavibus, obsoletius striato-punctatis; abdomine subtus tenuissime pubescente, vix punctulata, linea coxali nulla, processu ventrali rotundato acuminato; metasterno subtilissime punctulato, antice leviter foveolato; mesosterno quadrato, laevi, marginato; prosterno vage profunde punctato, processu marginato, postice emarginato; capite subtus transversim inpresso, lateribus punctatis, antennis brevioribus, articulo 3º subelongato. L. 2¾ lin.

Batchian (Wallace). Allied to Th. humeralis.

# Thallisella.

g. n. (typ. peruviana, Crotch).

Antennæ as long as the head and thorax, clothed with long hairs, 3rd joint longer than the 4th, club 3-jointed, loose, last joint acuminate. Head small, subtriangular, eyes very convex, very coarsely granulated. Thorax transverse with the sides and base margined, base with a transverse impression limited by a deep fovea. Tarsi very short, thick; abdomen with the coxal lines distinct. Metasternum acuminate at the apex, coxal lines evident and prolonged. Mesosternum sub-depressed. Prosternum with the process elongate, parallel, truncate, sides margined.

# Thallisella peruviana, sp. n.

Rufotestacea, subovata, nitida; capite thoraceque punctis raris impressis, hoc convexo, angulis anticis deflexis, antice regulariter emarginato, lateribus paulo rotundatis, marginatis, basi tenue marginato utrinque foveolato, late lobato, scutellum læve, rotundatum; elytris lævibus, sat fortiter punctato-striatis, macula humerali fasciaque infra medium flavis. L. 11 lin.

Peru (Janson).

Prosternum with a raised medial line, thus appearing tricarinate.

### Thallisella Malasiæ, sp. n.

Rufo-testacea, ovata, postice acuminata; capite thoraceque parcissime punctatis, hoc lateribus rotundatis, crasse marginatis, postice angustiore, basi transversim impresso, utrinque foveolato, marginato; elvtris nigris, fascia communi longe infra medium rufa, punctato-striatis, interstitiis lævibus, margine basali elevata, serrata; abdomine tenui pubescente, linea coxali abbreviata; metasterno parce punctulato, convexo, postice subtiliter canaliculato, antice acuminato, linea coxali distincta, mesosterno brevi ad prosternum arcte applicato; prosterno levi, processu elongato-quadrato, marginato, medio foveolato. L. 1 lin.

Sarawak (Wallace).

#### Tetrathallis.

g. n. (typ. carminea, Crotch).

Differs from Thallis by the 8th joint of the antennæ decidedly dilated, and the prosternal process dilated beyond the coxe, finely margined and deeply foveolate in the middle. The coxal lines are both present, the mesosternum is smooth, oval in front, margined, depressed in the middle, antennæ with the 3rd joint a little longer than the 4th.

# Tetrathallis carminea, sp. n.

Oblonga, nigra, convexa, nitida, capite, thorace antice, corporeque subtus obscure rufis; elytris singulis maculis 2 (1 humerali subobliqua, 1 subapicali) carmineis; capite parcius punctato; thorace sat crebre punctato, subtransverso, angulis anticis deflexis incrassatis, base tenuissime marginato, in medio leviter producto:

scutello vage punctato; elytris punctato striatis, (striis 8—9) interstitiis subtiliter parce punctulatis; abdomine subtus tenue pubescente, parce subtiliter punctulato; metasterno parce profunde punctato, canaliculato. L. 23/4 lin.

Sarawak (Wallace).

# Coptengis.

g. n. (typ. Sheppardi, Pascoe).

Eyes emarginate by the raised edge of the genæ. Antennæ with the 3rd joint elongate, club 3-jointed, 9th elongate-triangular, larger than the other two. Thorax much longer than broad, sides parallel, base broadly emarginate. Elytra punctate, apex truncate. Coxæ distant, prosternal process very broad, metasternum short, ventral process broad, truncate.

The brilliant colours of this genus (peculiar to the Malay archipelago) give it a striking appearance. M. Chapuis had suggested the above name in a provisional classification of the family for-

warded to me.

#### Coptengis Sheppardi.

Triplatoma Sheppardi, Pasc. J. of Ent. 1. 64.

Obscure viridis, nitidus, sparse punctatus, thorace punctis 2 anticis, elytris singulo punctis 2 (1 basali, 1 subapicali), pedibusque (geniculis exceptis) fulvis. L.  $9\frac{1}{2}$  lin.

Batchian, Morty (Wallace).

Var. elytris punctis posticis obsoletis.

# Coptengis Pascoii, sp. n.

C. Sheppardi simillimus, subcyaneus, nitidus, elytris singulo punctis 2 (1 basali majore, 1 apicem versus subtransverso). L. 9 lin.

Gilolo (Wallace).

#### Coptengis Chapuisi, sp. n.

 $C.\ Sheppardi$  formâ simillimus, sed totus cyaneus vel violaceus, sparsim obsoleteque punctatus. L.  $9\frac{1}{2}$ lin.

Gilolo, Morty (Wallace).

# Coptengis Wallacii, sp. n.

Minor, sat confertim punctatus, æneo-viridis, pedibus (geniculis nigris) fulvis; elytris punctatis, apice excavato-truncatis, angulo externo producto. L.  $5\frac{1}{4}$  lin.

Batchian (Wallace).

# Coptengis multi-guttatus, sp. n.

Viridi-æneus, distincte punctatus, thorace punctis 4 fulvis (2 anticis, 2 fere in angulis posticis); elytris singulis punctis 4 fulvis (2 transverse sitis ante medium, 1 paulo majore infra medium, 1 minuto subapicali); pedibus rufo-fulvis, geniculis nigris. L. 5 lin.

Malasia (Wallace).

The 9th joint of the antennæ is less elongate than in the preceding species.

### Triplatoma.

Westw. Griff. An. King. Ins. T. Lx. f. 5, et T. Lxxv. f. 5 (typ. picta, Perty).

[Pantheropus, Thoms. Ann. Ent. Soc. Fr. 1856, 323.]

### Triplatoma picta.

Engis picta, Perty Obs. Col. Ind. Or. 34. T. vi. Triplatoma variegata, Westw. Griff. An. King. Ins. T. LXXV. f. 5. \_\_\_\_ picta, Lac. Erot. 45.

Penang, Java, Sarawak (Wallace).

# Triplatoma Macleayi.

Triplatoma Macleayi, Lac. Erot. 47.

Pantheropus Pfeifferi, Thoms. An. Ent. Soc. Fr. 1856, 323. T. vii. f. 4.

Malacca, Penang, N. Borneo, Sarawak, Tringano.

Very like T. picta, but with the antennæ less decidedly moniliform, and the first joint of the club less elongate, the last joint large, rounded; abdomen with the sides of the ventral segments impressed, ventral process narrower, rounded.

The light markings are often fulvous.

### Triplatoma sexnotata.

Engis sexnotata, Wied. Zool, Mag. 11. 131.

Triplatoma -, Lac. Erot. 46.

Java.

Elytra impunctate, striæ hardly visible, thorax very sparingly punctate, a few coarse punctures on each side the base; antennæ with the first joint of the club sub-quadrate, large, not narrowed at the base.

# Triplatoma attenuata, sp. n.

Elongata, nigropicea, antice attenuata, vix punctulata; thorace antice angustiore, angulis anticis porrectis, lunulâ anticâ punctoque minuto in angulis posticis fulvis, elytris obsoletius striato-punctatis, fasciis tribus dentatis fulvis (1 sub-basilari, 1 pone medium, 1 sub-apicali). L. 10 lin.

Borneo, Sarawak (Wallace).

Antennæ with the 1st joint of the club elongate, but not so narrowed at the base as in *T. picta*; head with the front bi-impressed; prosternum compressed, sub-carinate; abdomen punctate beneath, ventral process truncate.

### Triplatoma bizonata, sp. n.

Elongata, attenuata, ænea sub-purpurascens, nitida, punctata; thorace angulis anticis porrectis, punctis 2 anticis fulvis; elytris fasciis duabus abbreviatis fulvis (1 arcuata, subdentata, ante medium; 1 infra medium, in margine dilatata, sub-recta). L. 6—8 lin.

Borneo, Sarawak (Wallace).

Prosternum subcompressed, the intercoxal process triangular, margined, depressed at the apex; mesosternum constricted in the middle.

Thorax with the sides rounded, posterior angles produced, base bi-sinuate.

# Triplatoma pubescens, sp. n.

Brunnea, obovata, convexa sat longe flavohirta, crebre punctata; thorace lateribus rotundatis, reflexis, angulis posticis productis acutis; elytris convexis, sulcatis, maculis rufis indeterminatis variegatis; corpore subtus pubescente, prosterno lato, apice sub-emarginato. L. 6½ lin.

Ceylon.

Antennæ elongate, club compressed, 1st joint elongate-triangular.

# Triplatoma cœca.

Elater cœcus, Fab. Gen. Ins. 234 (1777).
——elegans, Pal. Beauw. Ins. d'Afr. 10. T. vii. f. 4.
Episcapha cœca, Lac. Erot. 62.
Triplatoma apicalis, Westw. Ann. N. H. viii. 173.
Old Calabar, Cape Coast Castle, Benin, etc.

# Plagiopisthen.

Thoms. Ann. Ent. Soc. Fr. 1856, 321 (typ. paradoxus, Thoms.). Antennæ as in Triplatoma; eyes broadly margined by the genæ; thorax longer than broad, sides rounded and strongly margined, anterior angles acute, produced; prosternum convex, apex emarginate; mesosternum convex; ventral process broad, sub-truncate.

### Plagiopisthen paradoxus.

Plagiopisthen paradoxus, Thoms. Ann. Soc. Ent. Fr. 1856, 321. T. vii. f. 5.

Niger, sub-opacus, thorace sparse punctato; elytris  $\mathbf{v}$ ix punctatis, tenuissime serie-punctatis, singulo maculis duabus sanguineis (1 humerali, 1 sub-apicali); corpore subtus vix punctulato. L.  $7\frac{1}{2}$  lin.

Delagoa Bay (Janson). Mozambique (Thomson).

#### Episcapha.

Lac. Erot. 50 (typ. ---?).

Last joint of the maxillary palpi ovoid; antennæ with joints 2—8 sub-equal; thorax more or less transverse.

# Episcapha vestita.

Episcapha vestita, Lac. Erot. 50. Java.

# Episcapha intermedia, sp. n.

E. vestitæ valde affinis, et præsertim antennis multo brevioribus, lunulaque humerali minore, distincta. L. 5 lin. Java.

# Episcapha africana, sp. n.

Elongato-ovata, opacula, nigra; capite thoraceque obsolete punctulatis, hoc sub-quadrato, lateribus subrectis, angulis posticis utrinque marginatis, basi medio late truncato-lobato; elytris sat crebre punctatis, obsolete seriatim punctatis (punctis translucentibus), fascia basali punctis duabus (1 humerali, 1 majore juxta-scutellari) includente, annuloque sub-apicali completa, fulvis; abdomine subtus tenuiter pubescente, subtiliter punctulato. L. 54 lin.

Old Calabar (Murray).

### Episcapha annulata.

Engis annulata, MacLeay, Ann. Jav. 42. Episcapha oculata, Lac. Erot. 51.

Java.

It is true that MacLeay does not mention the pubescence, but I cannot doubt that he referred to this species; a variety now before me shows the completed posterior ring, as in his description, the red spots on head and thorax are often obscure.

# Episcapha antennata, sp. n.

Episcapha antennata, Reiche, MSS.

E. 4-maculæ simillima, antennis longitudine dimidii corporis, clava valde elongata præsertim distincta. L.  $5-5\frac{1}{2}$  lin.

Manilla (Reiche), Menado (Meyer), Tonda, Makassar (Wallace).

# Episcapha Fortunii.

Episcapha Fortunii, Crotch, Ent. Mo. Mag. 1x. 188. China, Japan.

# Episcapha consanguinea, sp. n.

E. Fortunii similis, sed minor, thorace multo breviore antice angustiore, elytris fortiter sat crebre punctatis, annulo humerali externe incompleto, fascia postica minus arcuata. L. 5 lin.

China, Shanghai, India (?)

# Episcapha indica, sp. n.

Nigra, subelongata, glabra, sparse obsolete punctata; thorace transverso, lateribus confertius punctatis; elytris subscriatim punctatis, singulo annulo lato humerali intus caudata (puncto minore nigro amplectente) fasciaque denticulata arcuata apicem versus, pallide fulvis. L. 6½—7 lin.

Darjeeling.

# Episcapha quadrimacula.

Engis 4-macula, Wied. Zool. Mag. 11. 132.

Episcapha —, Lac. Erot. 53.

Nepaul, Ceylon, Malacca, Penang, Singapore, Philippine Isl., Borneo, Java, Sarawak, Ceram, Bourou, Tonda.

A very abundant species.

# Episcapha glabra.

Engis glabra, Wied. Zool. Mag. 11. 131.

Episcapha —, Lac. Erot. 52.

This species appears to be confined to Java and is represented in the rest of the archipelago by the following. They are the only species in which the humeral angle of the elytra is entirely fullyous,

# Episcapha longicornis

Episcapha longicornis, Lac. Erot. 52.

Java, Sarawak, Amboina (Wallace).

The antennæ of my specimens are not as long as Lacordaire describes them.

# Episcapha taishoensis.

Episcapha taishoensis, Lewis, Ent. Mo. Mag. XI. 79. Chiosau and Tsu-sima, Straits of Corea,

# Episcaphula.

g. n. (typ. amboinensis, Crotch).

The old genus Episcapha evidently requires subdivision, but I have only ventured to cut off the species with the 3rd joint of the antennæ elongate, leaving the pubescent species together in a homogeneous group; this new genus will want further subdivision.

# Episcaphula amboinensis, sp. n.

Elongata, postice acuminata, nigra, nitidissima; sparsissime obsolete punctulata; thorace subquadrato, angulis anticis productis, incrassatis, macula irregulari sanguinea, basi bisinuato; elytris vix seriatim punctatis, singulis fasciis 2 rectis sanguineis (I basilari, subdentata, fere suturam attingente, I subapicali), apice indeterminate rufa; corpore subtus leviter punctato, pedibus rufis. L. 31-4 lin.

Amboina (Wallace).

Antennæ with a compressed club, the 8th joint elongate-triangular, as in Triplatoma; prosternum broad, flat, emarginate at apex.

### Episcaphula obliquesignata, sp. n.

Acuminata, nigra, nitidissima, thorace sparse obsoleteque punctulato; elytris sublævibus, singulis fasciis 2 sanguineis (1 basilari obliqua, in medio coarctata, humerum amplectente, 1 subapicali recta); pedibus rufis. L. 4 lin.

Amboina, Ceram, Bourou, Aru (Wallace).

Closely allied to E. amboinensis; the apical fascia varies in breadth.

## Episcaphula insularis, sp. n.

E. amboinensi simillima, nigra, obsolete punctulata; thorace maculis 2 anticis rufis; elytris fasciis 2 fulvo-rufis (1 basilari antice bidentata, 1 subapicali, arcuata), antennis pedibusque rufis. L. 3½—4 lin.

Malacca (Wallace).

### Episcaphula nigro-rufa, sp. n.

E. amboinensi affinis, sed major, capite thoraceque obsolete punctatis, hoc dimidia antica rufa; elytris crebrius evidenter punctulatis, fasciis 2 subrectis rufis, per suturam rufam connectis; antennis pedibusque rufis. L. 41 lin.

The elytra have rows of black dots representing the striæ, which

show through from the inside.

Ceram (Wallace).

# Episcaphula argus, sp. n.

E. nigrorufæ affinis, sed aliter colorata. Ænea, capite thorace obsoletius punctato, hoc punctis 4 fulvis (2 in margine antico, 2 in basi prope angulos); elytris crebrius evidenter punctatis, singulis punctis 5 fulvis (2 transverse positis ante medium, 2 valde oblique positis pone medium, 1 minuto apicali); antennis piceis, pedibus piceo-rufis. L.  $3\frac{1}{2}$ —4 lin.

Batchian (Wallace).

# Episcaphula quadrisignata, sp. n.

E.~argo valde affinis, sed undique obsolete punctulata, thorace unicolore, elytris singulis punctis 4 fulvis, 1 prope scutellum, 1 infra humerum, 1 prope suturam pone medium, 1 in marginem versus apicem; femoribus fulvis tibiis piceis. L. 4 lin.

Batchian (Wallace).

# Episcaphula quadrimaculata.

Triplax 4-maculata, Montrouz. Ann. Soc. Agric. Lyon. (2) vii. 73 (1855).

Island of Woodlark.

# Episcaphula quadripustulata.

Triplax 4-pustulata, Montrouz. Ann. Soc. Agric. Lyon. (2) VII. 73 (1855).

Island of Woodlark.

### Episcaphula angustata.

Triplax angustata, Montrouz. Ann. Soc. Agr. Lyon. (2) VII. 74 (1855).

Island of Woodlark.

# Episcaphula cruciata.

Episcapha cruciata, Lac. Erot. 55. Java.

# Episcaphula rudepunctata, sp. n.

Nigra, glabra, oblonga, nitida, capite confertim punctato, thorace brevi, subtiliter punctulata, punctis majoribus numerosis (præsertim lateribus) impressis; elytris sublævibus, seriatim punctatis, fasciis 3 sauguineis (1 subbasilari, recta, 1 infra medium, recta, 1 punctiformi subapicali), abdomine subtus punctulato, pubescente. L. 3 lin.

Rockhampton (Janson).

Prosternum with the process margined, apex triangularly emarginate.

# Episcaphula xanthosticta, sp. n.

Depressa, nigra, nitida, subovata; capite confertim punctato, thorace transverso, basi bisinuato, obsolete punctulato, punctis majoribus raris impressis, fulvo, basi nigro; elytris obsolete seriatim punctatis, interstitiis vix punctulatis, singulis maculis 2 læte croceis, I majore basilari ovata, I subapicali minore); antennis (clava nigra) pedibusque rufis. L. 3½ lin.

Waigion (Wallace).

Antennæ short, eyes more finely granulated.

### Episcaphula australis.

Episcapha Australis, Lac. Erot. 58. 12.

Triplax vittata, Montrouz. Ann. Soc. Agr. Lyon. vii. 73 (1855). Episcapha austro-caledonica, Fauv. Bull. Norm. vii. 172, T. x. f. 78.

———— Deyrolii, Perr. Ann. Linn. Lyon. xi. 216.

Ceram, Batchian, Timor, Amboina, Makassar (Wallace), Moreton Bay, Sydney, N. Caledonia.

This species is very variable but may be recognised by the sculpture of the thorax; the prosternum is emarginate behind.

# Episcaphula Reichei.

Episcapha Reichei, Fauv. Bull. Norm. VII. T. x. f. 77.

New Caledonia.

This is closely allied to *E. australis*; the underside is that of *E. pictipennis*, as are also the elytra; the thorax, however, is like that of *E. australis*, but the sculpture is unlike either.

### Episcaphula pictipennis, sp. n.

Elongata, nigra, nitida, capite crebre punctato, vertice sanguineo-maculato; thorace transverso, basi fere marginato, evidenter punctato, lateribus et basi punctis majoribus sparsim impressis; sanguineo, maculis 2 magnis discoidalibus nigris, basi attingentibus; elytris punctato-striatis, interstitiis punctulatis, fasciis 2 ochraceis (1 basilari acute dentata, 1 lunata infra medium) maculaque subapicali sanguinea; corpore subtus punctulato, prosterno, segmentis 2 ultimis ventralibus sanguineis. L 3½—4 lin.

Sydney, Tasmania.

#### Episcaphula parallela.

Triplax parallela, Montrouz. Ann. Soc. Agr. Lyon. (2) vii. 73 (1855).

Island of Woodlark.

This differs from E. pietipennis in having the thorax entirely red.

# Episcaphula granulata.\*

Episcapha granulata, Lac. Erot. 59. Australia.

# Episcaphula Hislopi, sp. n.

Oblongo-ovata, nigra, opaca, subtus nitidior, undique creberrime subrugose punctata, subtiliter brevissime setosula; thorace subtransverso, lateribus rotundatis, postice late lobato, tenuissime marginato; scutello punctulato, subtus undique crebre punctulato, linea coxali nulla, processu ventrali rotundato, prosterno postice late emarginato; capite subtus profunde transversim impresso, punctato. L 3½ lin.

Berah (Chevrolat).

This must be near *E. granulata*, Lac., but the elytra are there described as sulcate, and moreover it is from Australia.

# Episcaphula opaca, sp. n.

Nigra, opaca, pubescens, capite thoraceque scabris, hoc subtransverso, lateribus tenuiter marginatis; elytris profunde punctatostriatis, interstitiis evidenter punctulatis, lunula basali, fascia angusta infra medium, macula rotundata subapicali rufis; corpore subtus rufescente, pubescente. L. 3½—4 lin.

Sydney, Rockhampton.

# Episcaphula aulachochiloides, sp. n.

Nigra, scaphidiformis, subopaca; thorace sublævi, antice angustato, lateribus rotundatis, basi levissime bisinuato utrinque foveolato; elytris alutaceis, obsoletissime sparse punctulatis, singulis maculis 2 rubris (1 bidentato in angulo humerali, 1 transverso subapicali), corpore subtus lævi, prosterno carinato, lateribus profunde punctatis, epipleuris lævibus. L. 3½ lin.

Natal.

Closely resembling Aulacochilus, from which the produced anterior angles of the thorax, the structure of the antennæ, and the prosternum remove it.

## Episcaphula dubia, sp. n.

E, aulaeochiloides valde affinis, sed prosterno compresso haud carinato lateribusque lævibus differt. L. 3 lin.

Natal.

# Episcaphula thoracica, sp. n.

Ovata, convexa, nigra, nitida, capite confertim punctato; thorace subtransverso, læte fulvo, sat crebre punctato, lateribus tenuiter marginatis; elytris fortiter punctatis, punctis majoribus subseriatim dispositis, macula ochracea in margine infra humerum, punctoque obsoleta rufa ante apicem; corpore subtus femorumque basi fulvis, segmentis ventralibus punctatis, metasterno crebre profunde punctato. L.  $3\frac{1}{2}$  lin.

New Guinea (Wallace).

# Episcaphula phillipinarum.

Episcapha philippinarum, Lac. Erot. 55. Manilla (Reiche), Penang, Malacca, Sarawak (Wallace). Var. fascia basilari antice dentato. Timor, Menado (Wallace).

# Episcaphula proxima, sp. n.

*E. philippinarum* simillima, sed angustior, capite thoraceque sparsim punctatis, elytris obsolete striato-punctatis, prosternoque levi distincta. L.  $2\frac{1}{9}-3\frac{1}{4}$  lin.

Batchian, Ternate (Wallace).

# Episcaphula angustata\*.

Episcapha angustata, Lac. Erot. 60. Ips abbreviata, Weber, Obs. Ent. 96. Java.

### Episcaphula subparallela, sp. n.

Nigra, nitidissima, subparallela, capite thoraceque sparsim profunde punctatis; elytris obsoletissime vix scriatim punctulatis, fasciis duabus sanguineis (1 basilari obliqua, humerum amplectente, 1 subapicali medio coarctata); corpore subtus sat crebre punctato; pedibus rufis. L.  $2\frac{1}{2}$  lin.

Amboina (Wallace).

Prosternum carinate, process obtriangular, margined; antennæ short, the 3rd joint scarcely longer than the rest.

# Episcaphula denticulata, sp. n.

E. subparallelæ proxima, magis ovata, capite confertim punctato, thorace fortiter sparsim punctato, basi valde bisinuato, elytris striato-punctatis, interstitiis subtilissime punctulatis, striis ante apicem confusis, singulis fasciis 2 sanguineis (1 basali, postice denticulata, humerum amplectente, 1 utrinque abbreviata, subrecta, infra medium); prosterno epipleurisque fortiter punctatis. L.  $2\frac{1}{3}$  lin.

Sarawak (Wallace).

Prosternum carinate.

# Episcaphula senegalensis.

Natal.

# Episcaphula repanda.

Engis repanda, Klug, Erman's Reise, Nat. Atl. 32. T. xv. f. 4. Episcapha — , Lac. Erot. 56.

Senegal, Natal.

I have seen specimens marked "India," but evidently in error.

The prosternum is compressed, the process broad, margined, obtriangular.

### Episcaphula Mouattii.

Episcapha Mouattii, Guér. R. Z. (1841) 159.

Madagascar.

Prosternum not compressed, process broad, margined; ventral segments punctate, pubescent.

# Episcaphula rectesignata, sp. n.

E. obliquatæ valde affinis, antennis articulo 8º paulo dilatato, thorace lateribus magis rotundatis, elytrisque fascia basali recta, transversa, apicali subobliqua, facile distinguenda. L. 7½ lin.

Africa.

# Episcaphula trichroa, sp. n.\*

Oblonga, nigra, nitida, capite thoraceque confertim punctatis, hoc lateribus marginatis; elytris distincte serie-punctatis, intervallis punctatis, singulo fasciis 2 fulvis, apiceque rufo (1 basali antice valde dentata, 1 valde arcuata ante apicem). L. 6 lin.

Old Calabar (Murray).

Ventral segments punctate, pubescent in the middle; prosternum carinate, the intercoxal process broad, subquadrate, margined, slightly emarginate.

### Episcaphula obliquata.

Episcapha obliquata, Lac. Erot. 60. Senegal, Gaboon, Old Calabar.

# Episcaphula Savagii, sp. n.

Nigra, subopaca, sparse punctata; thorace subtransverso, lateribus crasse marginatis, basi utrinque foveolato; elytris obsoletissime punctulatis, sine seriebus punctorum, lunulâ basali humerum amplectente intusque caudata, fasciâque arcuata pone medium fulvo-ochraceis; apice ipsa abdomineque segmentis 2 ultimis rufescentibus. L. 10 lin.

C. Palmas.

# Episcaphula abnormalis, sp. n.

E. Savagii simillima, sed dimidio major, et præsertim antennarum structura distinguenda; clavæ articulis oblique positis, ultimo maximo. L. 13 lin.

Patria?

# Episcaphula sublævis, sp. n.

Oblonga, convexa, nigra, glaberrima, sublævis; thorace sat fortiter marginato, angulis anticis, acutis, deflexis, incrassatis, basi utrinque sinuato, foveolatoque, punctis paucis grossis impressis; elytris lævibus fortiter marginatis, fascia obliqua basali (antice dentata, postice recta) fasciaque subapicali transversa sinuata sanguineis. L.  $6\frac{1}{4}$  lin.

Waigiou (Wallace).

The smooth elytra at once distinguish this species. Prosternum subcompressed, closely punctate, epipleuræ smooth.

# Episcaphula elongata.

Episcapha elongata, Guér. R. Z. 1841, 160.

————, Lac. Erot. 58.

Java.

The long antennæ and their loose club render this species very conspicuous; Lacordaire describes it as glabrous, but the specimens before me are certainly pubescent; the eyes are very coarsely granulated, the 3rd joint of the antennæ is scarcely longer than the 4th.

### Megalodacne.

Crotch, Trans. Amer. Ent. Soc. 1873, 352. Cist. Ent. 141 (typ. fasciata, Fab.).

### Megalodacne fasciata.

Ips fasciata, Fab. Gen. Ins. 213 (1777).

Dacne —, Lac. Erot. 65.

Megalodacne fasciata, Crotch, Trans. Amer. Ent. Soc. 1873, 353. United States, Mexico.

# Megalodacne Audouini.

Dacne Audouinii, Lac. Erot. 66. Mexico.

a tibiis anticis incurvis.

# Megalodacne heros.

Dacne heros, Lac. Erot. 67.

Megalodacne heros, Crotch, Trans. Amer. Ent. Soc. 1873, 353.

United States.

& segmento ultimo ventrali carina acuta, triangulari; tibiis posticis intus crenulatis.

thorace breviore, segmentis ventralibus pubescentibus.

# Megalodacne grandis.

Ips grandis, Fab. Ent. Syst. 11. 511 (1792).

Dacne —, Lac. Erot. 65.

Natal, Madagascar (?).

& segmento ultimo ventrali leviter elevato in medio.

# Megalodacne sponsa\*.

Dacne sponsa, Lac. Erot. 69. Madagascar (Gory).

# Megalodacne tortuosa.

Dacne tortuosa, Lac. Erot. 69. Mexico (Lacordaire).

# Megalodacne Batesii, sp. n.

 $M.\ fasciatæ$  simillima, elytris distincte punctato-striatis, interstitiis obsolete punctulatis, annulo humerali sub-completa, intus minus caudata, fascia postica per marginem paulo producta; corpore subtus irregulariter, prosterno fortius, punctato. L.  $7\frac{1}{2}$ —8 lin.

Amazons (Bates).

# Megalodacne quadriguttata.

Erotylus 4-guttatus, Ol. Enc. Meth. vi. 434 (1791).

Dacne 4-guttata, Lac. Erot. 70.

---- multifida, Lac. Erot. 70, 9 var.

- brasiliensis, Lac. Erot. 70, var.

Megalodacne 4-guttata, Crotch, Cist. Ent. 141.

Cayenne, Amazons (Bates), Nicaragua (Janson).

 $\delta$  tibiis posticis incurvis, intus remote crenulatis; prosterno fortiter punctato.

? thorace breviore.

# Megalodacne chinensis, sp. n.

Nigra, nitida, antennis brevibus, thorace transverso sat crebre punctato, lateribus rectis; elytris punctato-striatis, interstitiis obsoletissime punctulatis, annulo humerali intus caudata, fasciaque angusta denticulata subapicali, sanguineis. L. 7 lin.

China.

Abdomen irregularly, prosternum strongly punctate, no male characters visible.

# Megalodacne luteoguttata, sp. n.

Nigra, nitida, obsolete punctata, thorace basi bisinuato utrinque leviter foveolato, punctis majoribus impressis; elytris sublævibus, obsoletius seriatim punctatis, singulis maculis 2 rotundatis fulvis (1 pone humeros, 1 subapicali); abdomine subtus punctato. L.  $5-7\frac{1}{2}$  liu.

Tringano.

& prosterno fortiter punctato, tibiis omnibus incurvatis crenulatis.

# Megalodacne simillima, sp. n.

Q M. luteoguttatæ persimilis, sed major, thorace breviori, paulo fortius punctato; elytris macula antica subobliqua, humerum subcingente, prosterno lævi, valde compresso, antice acuto producto. L.  $7\frac{1}{2}$  lin.

Šarawak (Wallace).

### Megalodacne elongatula, sp. n.

Elongata, subopaca, nigra, fronte impressa, thorace brevi, lateribus leviter rotundatis, obsoletissime punctulata, basi utrinque punctis majoribus impressis, ad marginem anticam continuatis; elytris sublævibus obsolete punctato-striatis, macula basali humerum subcingente, intus caudata, fasciaque postica denticulata, fulvis. L. 7 lin.

Malacca (Wallace).

Prosternum punctate, intercoxal process concave.

# Megalodacne Ulkei.

Megalodacue Ulkei, Crotch, Trans. Amer. Ent. Soc. 1873, 353. Kentucky.

#### 418 (42)

# Hoplaspis.

Mots. Et. Ent. 1858, 113 (typ. lamellicornis, Mots.).

# Hoplaspis lamellicornis.\*

Hoplaspis lamellicornis, Mots. Et. Ent. 1858, 113. India,

## Hoplaspis conicicornis.\*

Hoplaspis conicicornis, Mots. Et. Ent. 1858, 113. India.

#### Histanocerus.

Mots. Et. Ent. 1858, 112 (typ. pubescens, Mots.).

# Histanocerus pubescens.\*

Histanocerus pubescens, Mots. Et. Ent. 1858, 112. India.

# Zythonia.

Westwood, Thesaur. Ent. Oxon. 108 (typ. fulva, Westw.).

# Zythonia fulva.\*

Zythonia fulva, Westw. Thesaur. Ent. Oxon. 108. T. v. f. 1 (1874).
Guinea.

#### Subfamily 3. Triplacini.

### Pselaphacus.

Perch. Gen. Ins. 4, no. 6. Crotch, Cist. Ent. 141 (typ. nigro-punctatus, Perch.).

A. Anterior tibiæ enlarged before apex, thorax with two series of deeper punctures converging in front.

# Pselaphacus nigropunctatus.

# Pselaphacus contaminatus.\*

Pselaphacus contaminatus, Er. Arch. f. Nat. XIII. 180.

Peru.

I should have supposed this was P. nigropunctatus but for the frontal spots.

# Pselaphacus ducalis, sp. n.

P. nigropunctato affinis, thorace seriebus 2 transversis punctorum quatuor, margineque tenui nigris; elytris margine, seriebus 4 punctorum, macula scutellari ac humerali, fasciaque interrupta media, nigris. L. 9 lin.

N. Granada.

# Pselaphacus giganteus.

Triplax gigantea, Germ. Ins. Sp. Nov. 615. Pselaphacus giganteus, Lac. Erot. 76. Cayenne.

# Pselaphacus transversalis.

Pselaphacus transversalis, Lac. Erot. 76. Cayenne.

P. giganteo affinis, thorace fulvo margine tenui nigro.

# Pselaphacus sparsus.

Pselaphacus sparsus, Lac. Erot. 79. Brazil, Para.

# Pselaphacus poecilosomus.

Pselaphacus poecilosomus, Lac. Erot. 76. Hopei, Guér. Icon. R. A. Ins. 309. Columbia, Ecuador.

# Pselaphacus quinquenotatus.

Pselaphacus 5-notatus, Lac. Erot. 78. Cayenne.

# Pselaphacus maculatus.\*

Pselaphacus maculatus, Lac. Erot. 79. Bolivia,

# Pselaphacus confusus, sp. n.

P. sparso affinis, sed thorace toto nigro, elytris basi nigro bimaculato. L. 6 lin.

Para.

[This and the preceding nine species are closely allied, and I am inclined to think are very possibly colour-varieties.]

# Pselaphacus nigropictus, sp. n.

Niger, nitidus, thorace subtiliter punctato, lateribus rotundatis, postice paulo coarctato; elytris obsoletissime punctulatis, striato-punctatis, fulvo-ochraceis, margine, sutura, vitta apicali, maculisque 6 (2, 2, 2) nigris. L. 6—7½ lin.

Amazons (Bates).

The second spot touches the shoulder, the third reaches the suture and sometimes joins the fourth, the fifth is occasionally composed of two, the sixth is very small; the sutural margin is dilated at the apex.

B. Anterior tibiæ arcuate at their base; thorax simple.

# Pselaphacus curvipes.

Pselaphacus curvipes, Guér. R. Z. 157 (1841).

\_\_\_\_\_\_, Lac. Erot. 81.

Bolivia, N. Granada, Amazons,

d segmento ultimo ventrali biimpresso.

I cannot distinguish *P. gracilipes* by any character given by Lacordaire.

# Pselaphacus trifasciatus.\*

Pselaphacus trifasciatus, Lac. Erot. 83.

Cayenne.

Of this species I have not seen authentic types, it seems to me to be merely *P. curvipes*; the markings are identical, the tibiæ less arcuate, and the posterior femora not dentate at the base; hence I suppose it is founded on small males of *P. curvipes*.

### Pselaphacus distortus.

Pselaphacus distortus, Crotch, Cist. Ent. 142. Mexico, Nicaragua (Janson).

# Pselaphacus punctato-striatus, sp. n.

Niger, uitidus, thorace transverso, obsolete parce punctato; elytris levibus, profunde punctato-striatis, singulo lunula basali

humerum subcingente intus caudata, fasciaque arcuata paulo pone medium.  $\,$  L.  $\,$ 8 lin.

Para.

# C. Anterior tibiæ straight.

### Pselaphacus signatus.

Cayenne, Amazons (Bates), Columbia, Ecuador (Buckley), Bolivia, Nicaragua (Janson).

# Pselaphacus dentatus.

Triplax dentata, Germ. Ins. Sp. Nov. 615. Pselaphacus dentatus, Lac. Erot. 87. Brazil,

# Pselaphacus mæandrinus.

Pselaphacus mœandrinus, Lac. Erot. 86. Columbia, Ecuador.

### Pselaphacus amazonicus, sp. n.

P. dentato affinis, fascia basali nigra, lata, integra, basi elytrorum rufo-signato, fascia media marginem attingente, annulo apicali incompleta. L. 6 lin.

Amazons (Bates).

Differs from P. mæandrinus by the broad basal fascia, which entirely crowds out the upper part of the lunule,

#### Pselaphacus vitticollis.

Pselaphacus vitticollis, Crotch, Cist. Ent. 142. N. Granada, Nicaragua (Janson).

# Pselaphacus puncticollis.

# Pselaphacus semiclathratus.

Pselaphacus semiclathratus, Lac. Erot. 88. Yucatan, Mexico.

### Pselaphacus rubricatus.

Erotylus rubricatus, Hbst. Käf. viii. T. cxxxvii. f. 2. Pselaphacus ——, Lac. Erot. 85. Cayenne, Amazons, Ecuador.

# Pselaphacus approximatus, sp. n.

Niger, nitidus, capite punctulato; thorace obsolete punctulato, brevi; elytris sublevibus, striato-punctatis, annulo humerali sanguineo intus caudato et per marginem ad fasciam sanguineam subarcuatam pone medium continuato. L. 6 lin.

Amazons (Bates).

# Pselaphacus Nicaraguæ.\*

Pselaphacus Nicaraguæ, Crotch, Cist. Ent. 142. Nicaragua (Janson).

# Megischyrus.

Crotch, Cist. Ent. 143 (typ. undatus, Ol.).

# Megischyrus undatus.

Erotylus undatus, Oliv. Enc. Méth. vi. 434 (1791).

— oblongus, Dup. Erot. 40.

Ischyrus — , Lac. Erot. 92.
Cayenne.

# Megischyrus brasiliensis.

Ischyrus brasiliensis, Lac. Erot. 91.

Brazil.

Closely allied to *M. undatus*, from which it differs by the more evidently punctate strize of the elytra; I am, however, inclined to consider it a variety, especially as *M. Jurinei* varies in a similar manner.

# Megischyrus Jurinei.

Ischyrus Jurinei, Lac. Erot. 94.
—— fasciato-dentatus, Guér. MSS.
Bolivia.

Allied to *M. brasiliensis* in structure. I have not seen a specimen with the margins of the elytra red as described by Lacordaire, but I have one of *M. undatus* without the red margin taken by Bates; his series of specimens are nearly intermediate between *M. undatus* and *M. Jurinei*.

# Megischyrus Chevrolatii. sp. n.

M. Jurinei affinis, subopacus, elytris profunde punctatostriatis, punctis nigris (ut in Erot. histrio), ramo connectente fasciisque latioribus (ut in M. brasiliensi). L. 10 lin.

Minaes Geraes.

# Megischyrus mexicanus.

Ischyrus mexicanus, Lac. Erot. 93. Mexico, Orizaba.

# Megischyrus Nicaraguæ.\*

Megischyrus Nicaraguæ, Crotch, Cist. Ent. 143. Nicaragua (Janson).

# Megischyrus columbianus.

Ischyrus columbianus, Lac. Erot. 95,

Columbia, Pebas.

The markings in the specimen from the latter locality are broader and less dentate and their colour light ochroous.

# Megischyrus scaphinotus.\*

Ischyrus scaphinotus, Lac. Erot. 96. Columbia.

# Megischyrus angustatus.

Ischurus angustatus, Lac. Erot. 96. Columbia (Reiche).

# Megischyrus connexus, sp. n.

Subelongatus, convexus, parallelus, ater, capite thoraceque obsolete punctulatis, elytris subtiliter punctato-striatis, transversim subrugosis, fasciis 3 integris coccineis e maculis alternis conflatis. L. 81 lin.

Ñ. Granada, Ecuador (Buckley).

The specimens from Ecuador are brighter, more obviously rugose, and have the fascize broader; the emargination of the thorax is also regularly rounded.

# Megischyrus mesomelas, sp. n.

Ater, opacus, oblongus, latior, elytris antice punctato-striatis, fasciis 3 dentatis ochraceis approximatis, ad marginem junctis. L. 73 lin.

Écuador (Buckley).

# Megischyrus Guatemalæ, sp. n.

Ater, subnitidus, oblongus, capite thoraceque subtiliter punctulato, elytris tenue punctato-striatis, fasciis 3 e maculis alternis conflatis sanguineis. L.  $6\frac{1}{2}$ —7 lin.

Guatemala.

Allied to M. mesomelas but with the fasciæ well separated from each other.

# Megischyrus catenulatus.

Ischyrus catenulatus, Lac. Erot. 97. Bolivia.

# Megischyrus Bogotæ, sp. n.

Ater, opacus, vix punctulatus, elytris tenuiter obsolete punctato-striatis, fasciis 3 e maculis alternis conflatis ochraceis. L. 6 lin. Bogota (Janson).

Very like M. Guatemale, but opaque, almost impunctate.

# Megischyrus catenatus, sp. n.

M. catenulato simillimus, sed paulo nitidior, punctulatus, elytris bifasciatis, lateribus haud rufis. L. 7 lin.

Amazons (Bates), Pebas, Ecuador (Buckley).

The Ecuador and Pebas specimens have the markings ochreous.

# Megischyrus sanguinolentus.\*

Ischyrus sanguinolentus, Lac. Erot. 97.

Megischyrus ——— , Crotch, Cist. Ent. 143. Mexico, Yucatan (Chapuis), Nicaragua (Janson).

This is very like *M. catenatus*, but differs in being opaque, without visible punctuation; the markings differ a little, the central fascia especially is narrower.

# Megischyrus bellicosus.

Ischyrus bellicosus, Lac. Erot. 98. Brazil.

# Megischyrus semipunctatus.

Erotylus semipunctatus, Germ. Ins. Sp. Nov. 612. Ischyrus ————, Lac. Erot. 99. Brazil, Rio Janeiro.

## Megischyrus decempunctatus.

## Megischyrus semitinctus.\*

Ischyrus semitinctus, Er. Arch. f. Nat. XIII. 180 (1847). Peru.

## Megischyrus Knochii.

Ischyrus Knochii, Lac. Erot. 100. Bolivia.

## Megischyrus discipennis.

Ischyrus discipennis, Lac. Erot. 101. Megischyrus —————————, Crotch, Cist. Ent. 143. Mexico, Nicaragua (Janson).

## Megischyrus sicarius.

Ischyrus sicarius, Lac. Erot. 101.
—— perizonatus, Lac. Erot. 103.
Brazil (?), Columbia.

The variety perizonatus has the thorax ferruginous with five black spots; and I have a variety in which the thorax has a central black vitta and a black dot on each side.

## Megischyrus zonalis.

Ischyrus zonalis, Lac, Erot. 102.

Var. lineolatus: elytris plaga nigra lineola rubra continente. Bolivia, Guarayos, Amazons (Bates).

## Megischyrus circumscriptus.

Erotylus circumscriptus, Dup. Erot. 41. Ischyrus ———————————, Lac. Erot. 102. Brazil.

This is possibly an opaque form of M. zonalis.

### Megischyrus lineatus.

Rio Janeiro, Goyaz.

I cannot see that *M. grammistes* differs essentially from *M. lineatus*, no two specimens of the latter are precisely alike.

#### Ischyrus.

Lac. Erot. 89 (typ. quadripunctatus, Oliv.).

### Ischyrus quadripunctatus.

Erotylus 4-punctatus, Oliv. E. M. vi. 437, 34.

Ischyrus —————, Lac. Erot. 127.
————————, Crotch, Tr. Am. Eut. Soc. 1873, 353.

United States, principally in the South, but reaching as high as New York.

The thorax has four spots in a transverse line.

### Ischyrus Duponti.

Ischyrus Duponti, Lac. Erot. 110. Columbia, N. Granada.

#### Ischyrus vespertilio.\*

Ischyrus vespertilio, Lac. Erot. 112. Columbia, Mexico.

#### Ischyrus elegantulus.

Ischyrus elegantulus, Lac. Erot. 121.
——————————————, Crotch, Cist. Ent. 144.
Columbia, Nicaragua (Janson).

#### Ischyrus frontalis.

Ischyrus frontalis, Lac. Erot. 127. Mexico.

#### Ischyrus impresso-punctatus, sp. n.

Rufo-fulvus, oblongus, fortiter punctatus; capite nigro, thorace fulvo, fortiter punctato, disco punctis 3 nigris in linea transversa, margine antico dentibus 2 approximatis, postico 2 separatis nigris; elytris rufo-fulvis, sutura nigra, fortius punctato-striatis, interstitiis subtiliter punctatis, fascia basali valde dilacerata, maculis 2 fulvis includente, fascia subapicali depauperata, macula parva apicali libera; corpore subtus rufo-piceo, prosterno rufo. L.  $2\frac{3}{4}$  lin.

Distinct by the coarse punctuation and the thorax with 3 black dots.

## Ischyrus agnatus, sp. n.

Subelongatus, fulvus, fortiter punctatus; capite rufo, bi-impresso; thorace transverso, fortiter punctato, maculis 3 in linea transversa nigris (centrali valde majore); elytris flavis, maculis 2 subquadratis communibus (1 basali, 1 pone medium) punctisque 2 externis (1 ante, 1 in medium), sutura margineque tenue nigris; subtus piceus, femoribus fulvis. L. 23 lin.

New Granada.

### Ischyrus vittatus, sp. n.

Rufo-fulvus, oblongus; capite fortius punctato, vertice nigro bimaculato; thorace fortiter punctato, maculis 3 nigris (1 utrinque in medio, 1 majore in basi ante scutellum); elytris sat fortiter punctato-striatis, interstitiis parcissime punctulatis, macula subquadrata communi apicem versus, singuloque vitta basali subintegra lata (infra medium attingente), nigris; subtus nigro-piceus. L. 24 lin.

Brazil.

#### Ischyrus graphicus.

Ischyrus graphicus, Lac. Erot. 125.

-----, Crotch, Cist. Ent. 144.

Mexico, Nicaragua (Janson).

Closely allied to *I*. 4-punctatus, and may perhaps prove to be a red-headed southern form of it.

#### Ischyrus tetraspilotus.

Ischyrus tetraspilotus, Guér. Icon. R. A. Ins. 310 (1846). Columbia.

#### Ischyrus tripunctatus.

Ischyrus tripunctatus, Crotch, Cist. Ent. 144. Nicaragua (Janson).

#### Ischyrus nigrans.

Ischyrus nigrans, Crotch, Tr. Am. Ent. Soc. 1873, 354.Florida.

#### Ischyrus extricatus.

Ischyrus extricatus, Crotch, Tr. Am. Ent. Soc. 1873, 354. Middle States.

### Ischyrus interruptus.

### Ischyrus subcylindricus.

Ischurus subcylindricus, Lac. Erot. 117.

Cayenne, N. Granada.

This resembles a small specimen of *I. interruptus* with the head red, and a black humeral spot isolated from the basal fascia.

## Ischyrus Sheppardi, sp. n.

Flavorufus, oblongus, parallelus, subtus rufus, pedibus nigris; capite rufo vertice nigro (colore nigro antice bilobato); thorace subquadrato, fortius punctato, lateribus late albidis, puncto nigro, disco figuram nigram (ad litteram H similem), basi nigro marginato; scutello rufo; elytris tenuissime striato-punctatis, sutura nigra, singula macula acuminata infra scutello, altera humerali triangulari, puncto infra humerum, macula infra medium valde dentata et per suturam prolongata ad apicem (et in margine externo continuata), nigris. L. 3 lin.

Brazil.

Allied to *E. subcylindricus*, but most variable; the 2 specimens I have seen are at first quite unlike; the thorax has normally 4 discoidal spots, 2 anterior, and a quadridentate basal line; the elytral fasciæ are broken up in every possible way.

#### Ischyrus Bahiæ, sp. n.

Pallide fulvus, oblongus, capite pectore geniculisque nigris; thorace crebrius sat fortiter punctato, punctis 4 transverse positis, lineaque basilari tridentata, nigris; elytris fascia basali extus abbreviata postice utrinque dentata, punctoque parvo marginem versus nigris, macula postica in singulo triangulari, ad suturam connexis. L. 2<sup>3</sup> lin.

Bahia.

Allied to I. interruptus.

#### Ischyrus fraternus.

Ischyrus fraternus, Lac. Erot. 124.

Columbia, N. Granada.

In this the posterior angles of the thorax are black also; the clytral punctures are coarse, translucent, and appear oblong.

## Ischyrus pallidior, sp. n.

Pallide ochraceus, subellipticus; capite thoraceque subtiliter punctatis, illo antice nigro, vertice ochraceo, vitta nigra; hoc macula transversa in margine antico, punctisque 4 transverse positis nigris; elytris alutaceis, tenue punctato-striatis (punctis numerosissimis), interstitiis subtilissime punctulatis, fasciis 2 communibus nigris, extus abbreviatis (1 basali integra, 1 pone medium leviter dentata), sutura, margine epipleurisque nigris. L. 3 lin.

Mexico (Sallé).

# Ischyrus insolens, sp. n.\*

Pallide ochraceus, oblongus, subtus flavus, pedibus elytrorumque epipleuris brunneis; capite margine antico verticeque nigris, thorace parce fortius punctato, margine antico macula biloba, punctisque 4 transverse positis (in linea antico concava), lateribus basique tenue nigris marginatis; scutello nigro, disco rufo; elytris tenue striato-punctatis, interstitiis vix punctulatis, macula subquadrata basali communi, puncto humerali, fascia communi pone medium antice posticeque dentatis (maculis 2 fulvis includente) apiceque nigris. L. 4 lin.

Mexico (Sallé).

#### Ischvrus Boucardi, sp. n.

Oblongus, fulvus, parallelus; capite vertice triangulariter nigro; thorace parce punctato, margine antico, macula biloba, punctisque 4 transverse positis nigris, basi tenue nigro marginato; elytris fasciis 2 communibus integris apiceque nigris (1 basali punctoque fulvo humerali includente, 1 pone medium, dentata. ad suturam paulo dilatata); subtus niger, fulvovariegatus. L.  $3-3\frac{1}{4}$  lin.

S. Catharina (Boucard), Amazons (Bates).

The specimen taken by Mr Bates is smaller, with the fascize more dentate.

#### Ischvrus nobilis, sp. n.

Fulvo-rufus, oblongus, parallelus, nitidus, capite rufo, parce fortius punctato; thorace parce fortiter punctato, punctis 4 nigris (1 quadrato in margine antico, 1 utrinque in disco, 1 triangulari in medio paulo ante scutellum); elytris nitidissimis, fortius sed obsoletius punctato-striatis (punctis translucentibus oblongis), basi fasciisque 3 angustis valde flexuosis; subtus rufus. L. 23 lin.

Amazons (Bates).

The space between the fascize on the elytra is pale yellow, the base and apex fulvous red. The basal point on the thorax is probably part of a tridentate line.

## Ischyrus consimilis, sp. n.

Oblongus, convexus, crassus, fulvus, subtus rufus, pectore nigro, capite rufo, bi-impresso, parce punctato; thorace fortius punctato, vitta discoidali, macula utrinque in basi nigro; scutello nigro; elytris fortius punctato-striatis, interstitiis vix punctulatis, sutura fasciisque 3 communibus nigris, 1 basali (macula fulva juxta scutellari includente), 1 infra medium, 1 parva extus abbreviata subapicali). L.  $2\frac{1}{3}$  lin.

Amazons (Bates); allied to T. nobilis, but the thorax is very

differently marked.

#### Ischyrus nitidior, sp. n.

Rufus, subellipticus, postice angustior, nitidus; capite thoraceque parce fortius punctatis, hoc punctis 4 nigris (2 anticis subapproximatis, 2 posticis remotis); elytris nitidissimis, tenuiter striato-punctatis, interstitiis parcissime punctulatis, sutura (apice excepto), fascia basali (humero attingente), centrali (margine attingente), ad suturam dilatata, subapicalique parvâ nigris; subtus rufus, epipleuris rufis. L.  $2\frac{1}{2}$  lin.

Amazons (Bates).

#### Ischyrus Bogotæ, sp. n.

Rufo-fulvus, subellipticus, capite nigro parce sed fortiter punctato; thorace obsolete punctulato, maculis 4 nigris, 1 in margine antico bilobo, 2 remotis in disco, 1 magna triangulari ante scutellum nigrum; elytris tenuissime striato-punctatis, opaculis, macula quadrata scutellari, vitta brevi humerali, fascia communi utrinque abbreviata infra medium, maculaque parva subapicali nigris; sutura tenuiter nigro marginato. L. 4 lin.

Bogota (Janson).

#### Ischyrus macularis.

Ischyrus macularis, Lac. Erot. 128. Columbia.

#### Ischyrus angularis.\*

Ischyrus angularis, Lac. Erot. 126. Columbia.

#### Ischyrus proximus.

Ischyrus proximus, Lac. Erot. 113. Mexico.

### Ischyrus femoralis.

Dacne femoralis, Chev. Guér. Icon. R. A. Ins. T. XVIII. f. 10. Ischyrus —— , Lac. Erot. 114. Mexico.

This is probably a variety of I. proximus with the head red.

### Ischyrus velatus.

Ischyrus velatus, Lac. Erot. 115. N. Granada, Venezuela.

### Ischyrus palliatus.

Ischyrus palliatus, Lac. Erot. 113. Columbia, Amazons (Bates). Probably a variety of *I. velatus* with rufous head.

## Ischyrus gratiosus.

Ischyrus gratiosus, Guér. Icon. R. A. Ins. 310 (1846). Columbia.

This is very nearly allied to I. relatus.

The five foregoing species are extremely close, and might be regarded as varieties; I am unable to indicate any constant structural differences.

#### Ischyrus patruelis.

Ischyrus patruelis, Lac. Erot. 124.

Brazil.

Distinct from the four preceding by the apical spot on the elytra.

### Ischyrus scriptus.

Erotylus scriptus, Oliv. Ent. v. 484. T. III. f. 38. Ischyrus ———, Lac. Erot. 119.

— maculiventris, Lac. Erot. 120.

Brazil, Cayenne.

In *I. maculiventris* the head is blacker, and the pectus is black, but no other difference is observable.

#### Ischyrus incertus.

Ischyrus incertus, Lac. Erot. 118.

Cayenne, Columbia.

Thorax with six black spots, the apical and basal pairs confluent.

#### Ischyrus lætus.\*

Ischyrus lætus, Lac. Erot. 122. Rio Janeiro (Lacordaire).

#### Ischyrus variabilis.

Erotylus variabilis, Dup. Erot. 17. T. 1. f. 25. Ischyrus ————, Lac. Erot. 121.

Brazil.

Thorax with 8 black spots, 2 on the anterior margin, 2 remote on the disc, 4 along the base.

## Ischyrus nigrolineatus, sp. n.

Fulvus, oblongus, subtus niger, prosterno, abdomine lateribus tursisque fulvis; capite nigro, sat fortiter punctato; thorace punctis 8 nigris, 2 in margine antico, 2 in basi, 4 in linea transversa discoidali, postice concava; scutello rufo; elytris punctato-striatis, interstitiis subtiliter punctulatis, fascia basali communi extus abbreviatâ postice fortiter bilobâ, sutura maculaque parva subapicali nigra; singulo maculis elongatis pone medium. L.  $2\frac{1}{2}$ —3 lin.

Habitat?

The posterior spot represents the ordinary fascia broken up.

#### Ischyrus similior, sp. n.

Rufo-fulvus, oblongus, subtus niger, prosterno, abdominis lateribus tarsisque fulvis; capite thorace parce subtilius punctatis, illo nigro, hoc punctis 8 nigris (2 in margine antico, 3 in basi, 1 utrinque in margine laterali); elytris sublevibus, obsoletius punctato-striatis, punctis translucentibus, sutura tenue nigro marginata, ante apicem in macula irregulari dilatata, fascia basali angusta, integra, postice valde dentata, nigra; singulo macula magna media quadrata, antice tri-, postice bi-lobata, extus excisa. L. 3 lin.

Habitat?

In this species the 2nd fascia is just in the middle of the elytra,

### Ischyrus flavitarsis.\*

Ischyrus flavitarsis, Lac. Erot. 130. St Domingo (Sallé).

#### Ischyrus modestus.

Erotylus modestus, Oliv. Ent. v. 483. T. III. f. 35. Ischyrus ——, Lac. Erot. 130. St Domingo.

#### Ischyrus fulvitarsis.

Ischyrus fulvitarsis, Lac. Erot. 129. Haiti.

## Ischyrus auriculatus.

Ischyrus auriculatus, Lac. Erot. 123.

Cavenne, Bahia.

Distinct from all others by the thorax being black with the anterior angles fulvous.

# Ischyrus distinguendus.

Ischyrus distinguendus, Lac. Erot. 111. Mexico.

### Ischyrus collatinus, sp. n.

Fulvus, oblongus, subtus niger, prosterni lateribus rufis; capite rufo vertice nigro, thorace crebrius punctatis, subtransverso, lateribus rotundatis, antice angustiore, linea transversali discoidali nigra (utrinque abbreviata) basique nigro marginato in medio; scutello nigro; elytris sublævibus punctato-striatis, singulo maculis nigris 7; 1 transversa paulo infra scutellum, 1 minima marginem versus, 1 transversa paulo ante medium, 1 minima marginem versus, 1 obliqua in tertiâ apicali, 1 subapicali, ad suturam conjuncta. L. 3 lin.

N. Granada.

The colouring is unique in this genus.

## Epytus.

Dej. Cat. 452 (typ. violaceus, Sturm).

[Oocyanus, Hope, 1841, Lac. Erot. 194.]

This genus differs from *Ischyrus* by the almost equal dilatation of the labial and maxillary palpi. The eyes are coarsely granulated, though Lacordaire gives them as being finely so. The species are apparently confined to the West Indies.

## Epytus violaceus.

Erotylus violaceus, Sturm, Cat. 82, T. iv. f. 38 (1826). Oocyanus ————, Lac. Erot. 196. Cuba.

#### Epytus tarsatus.

Oocyanus tarsatus, Lac. Erot. 196. Ischyrus tarsalis, Lac. Erot. 106.

Cuba, Columbia (Reiche).

I cannot doubt from the descriptions that Lacordaire has described this species twice over, the only discrepancy being size.

The locality "Columbia" assigned to Reiche's specimen is probably erroneous, as I have seen numerous examples from Cuba.

#### Callischyrus.

g.n. (typ. insiguis, Lap.).

Allied to *Ischyrus* in the structure of the palpi and mentum, but with the eyes much less strongly granulated, hardly more so than in *Mycotretus*.

## Callischyrus insignis.

## Callischyrus cyanopterus.

Ischyrus cyanopterus, Eric. Arch. f. Nat. XIII, 180 (1847). Peru, Ecuador, N. Granada.

#### Callischyrus venustus.

Ischyrus venustus, Lac. Erot. 109. Columbia, Yucatan (Lacordaire).

Differs by the apex of the elytra being fulvous, and the thorax having only two spots.

# Callischyrus melanogaster.

Ischyrus melanogaster, Guér. Icon. R. A. Ins. 310 (1846). Columbia.

### Callischyrus melanopus.

Morphoides melanopus, Guér. R. Z. 1841, 118. Ischyrus ———, Lac. Erot. 109.

N. Granada.

Differs from C. insignis by the dark greenish elytra and the five spots on the thorax.

## Callischyrus Candezei, sp. n.

C. ameno proximus, thorace fortius punctato, punctis 2 auticis nigris; scutello punctato; elytris lunula humerali, fascia media, alteraque subapicali ad suturam interruptis albidis; epipleuris nigris. L. 42—5 lin.

Guatemala (Chapuis).

Easily recognizable by the black epipleuræ of the elytra.

#### Callischyrus amœnus.

Lybas amænus, Guér. R. Z. 1841, 155.

Ischyrus amænus, Lac. Erot. 107.

Mexico.

Allied, in coloration, to Mycotretus psittacus and certain Brachysphani.

# Callischyrus hieroglyphicus.

Erotylus hieroglyphicus, Dup. Erot. 17, T. I. f. 24. Ischyrus ————, Lac. Erot. 106.

Brazil.

This species resembles an Iphiclus in coloration.

### Amblyopus.

Lac. Erot. 197 (typ. vittatus, Oliv.).

### Amblyopus natalensis, sp. n.

A. senegalensi proximus, paulo major, magis elongatus, antennis longioribus, clava nigra, tibiis apice rotundato-dilatatis.
L. 4 lin.

Natal.

A single specimen from Lake N'gami is smaller, and the tibiae are not so decidedly rounded as in the type from Natal, neither, however, are they at all like the Senegal species.

#### Amblyopus senegalensis.

Amblyopus senegalensis, Lac. Erot. 201.

testaceus, Lac. Erot. 201.

Senegal (Lacordaire), Old Calabar (Murray).

Tibiæ abruptly triangularly dilated, the external edge setose.

A. testaceus is simply a pale variety. In Mr Sheppard's collection a specimen is labelled (in error?) as coming from St Domingo.

### Amblyopus rubens.

Erotylus rubens, Hope, Zool. Misc. 31.

Amblyopus melanostomus, Lac. Erot. 200.

Darjeeling, Java (Lacordaire), Nepaul, Bengal.

The eyes in this species are certainly finely granulated.

### Amblyopus rusticus.

Amblyopus rusticus, Lac. Erot. 200. Java.

# Amblyopus cinctipennis.

Amblyopus cinctipennis, Lac. Erot. 199. Bengal, Ceylon, Thibet, Bombay.

## Amblyopus Murrayi, sp. n.\*

Oblongus, postice paulo angustior, subtus rufescens; capite crebre punctato, oculis remotis; thorace transverso lateribus rotundatis marginatis, angulis anticis acutis, posticis obtusis, basi in medio lobato, sat crebre (lateribus fortius) punctato; elytris alutaceis, sublævibus, seriatim punctatis, lateribus fortius reflexis, fulvis, margine, sutura (basi dilatata, apice angustata) puncto humerali, vittaque centrali (fere ad apicem excurrente) nigris; subtus abdomine punctato, metasterno sublævi, prosterni lateribus epipleurisque fortiter punctatis. L. 3½ lin.

Old Calabar (Murray).

### Amblyopus vittatus.

Triplax vittatus, Oliv. Ent. v. 490, T. I. f. 2.

Amblyopus vittatus, Lac. Erot. 198. Bengal, Penang, Java, Ceylon, Tringano.

[Tritoma praposita, Walker, Ann. N. H. III. 259, is an immature specimen of this genus, probably of A. vittatus.]

#### Cyrtomorphus.

Lac. Erot. 240 (typ. pantherinus, Lac.).

The eyes are not coarsely granulated, but are rather interme-

diate between Amblyopus and Triplax.

The structure of the mentum, their broad short-ovate form, and thickly punctate (of the elytra hardly striate) surface will at once separate them.

## Cyrtomorphus pantherinus.

Cyrtomorphus pantherinus, Lac. Erot. 241. Java.

The antennæ have a broad 3-jointed club, the last joint being very small and inserted in the hollow of the 10th; the abdomen and pectus are very strongly punctate.

## Cyrtomorphus bengalensis.

Erotylus (Cyrtomorphus) bengalensis, Guér. R. Z. 1841, 153.

Т. г. f. 1.

Cyrtomorphus bengalensis, Lac. Erot. 242. Java, Bengal.

#### Cyrtomorphus nitiduloides.

Cyrtomorphus nitiduloides, Lac. Erot. 243. Java

## Cyrtomorphus inversus, sp. n.

Breviter ovatus, crebre punctatus, niger; capite vertice, elytris epipleuris, maculisque tribus (1 juxta-scutellari, 2 in medio transverse positis) abdominisque apice aurantiacis. L. 4 lin.

Sumatra (Wallace), Penang.

The striæ on the elytra are hardly visible.

#### Cyrtomorphus angustior, sp. n.

C. inverso simillimus, sed multo angustior, et maculis elytrorum in fascia media coeuntibus.

Penang.

## Cyrtomorphus Wallacei, sp. n.

Niger, breviter ovatus, crebre punctatus, thorace elytrisque fusco-ochraceis, marginibus dilutioribus; his vix punctato-striatis. L.  $2\frac{1}{2}$  lin.

Sarawak (Wallace).

The punctures of the strice shew through and form regular rows, but are not impressed.

### Mycotretus.

Dej. Cat. Ed. 3, 452 (typ. --- ?).

# Mycotretus nigrovittis.\*

Mycotretus nigrovittis, Lac. Erot. 157. Cavenne,

### Mycotretus arcuatus.\*

Mycotretus arcuatus, Lac. Erot. 158. Cayenne.

#### Mycotretus maculatus.

Erotylus maculatus, Oliv. Enc. Méth. vi. 436 (1791).

Mycotretus? maculatus, Lac. Erot. 192.

figuratus, Lac. Erot. 159.

Cayenne, Columbia, Para (Bates).

Interstices of elytra very sparingly punctured; coxal lines present. Antennæ with a 4-jointed club, joints short, adpressed.

## Mycotretus mutabilis, sp. n.

M. maculato simillimus, sed latior, colore rufo-fulvo, thorace-que breviere distinctus. L. 4 lin.

Ega Para (Bates).

This is very close to *M. maculatus*, but is I think distinct; the markings on the thorax are the same, except that the basal pair are much more oblique; the variations are numerous, the apical pair united, the basal pair united into a triangular spot, the discoidal one absent, &c. In the elytra the basal fascia is never divided as in *M. maculatus*, but sometimes reaches the base, though not the external margin. In one specimen (*M. tricinctus*), which may be distinct, there is a third supplementary subapical fascia. Sides of the metasternum very sparingly punctate.

## Mycotretus basalis, sp. n.

Oblongo-ovatus, brevis, late fulvus, antennis nigris; capite thoraceque punctulatis, illo puncto verticali nigro, hoc brevi, tenuissimo nigro-marginato, punctis 2 anticis, 1 utrinque discoidali, maculaque basali transversa, nigris; elytris tenue punctatostriatis, interstitiis vix punctulatis, tertia basali nigra, epipleuris flavis, corpore subtus sublavi. L. 3.; lin.

Ega (Bates).

Allied to M. maculatus, but much smaller.

### Mycotretus cinctiger, sp. n.

Oblongo-ovatus, postice paulo acuminatus rufotestaceus, antennis nigris (basi rufis); capite thoraceque crebre visibiliter punctulatis, hoc lateribus subrectis, punctis 4 transverse positis in disco, basi paulo infuscato; scutello rufo; clytris punctato-striatis, interstitiis subtiliter perce punctulatis, alutaceis, fascia lata communi basali nigra, nec marginem nec basin attingente. L. 3 lin.

Santarem (Bates).

#### Mycotretus marginicollis.

Mycotretus marginicollis, Lac. Erot. 159.

Brazil.

Coxal lines present; clytra hardly punctate.

## Mycotretus pebasensis, sp. n.

M. marginicolli affinis, sed elytris distincte punctato-striatis, corpore subtus rufotestaceo (tibiis solis infuscatis), fascia basali basin attingente (puncto parvo juxta-scutellari flavo), fascia media angustiore, medio constricto, maculaque apicali triangulari, multo maiori.

Pehas

## Mycotretus leprosus.

Mycotretus leprosus, Lac. Erot. 160.

Cavenne.

Coxal lines present: elytral interstices almost smooth, sides of metasternum impunctate.

#### Mycotretus argus.\*

Mycotretus argus, Lac. Erot. 161. Cayenne (Lacordaire).

## Mycotretus palmiphilus.

Mycotretus palmiphilus, Lac. Erot. 165. Cayenne, Ega (Bates).

#### Mycotretus sexoculatus.

Mycotretus sexoculatus, Lac. Erot. 165. Columbia.

#### Mycotretus melanopterus.

Mucotretus melanopterus, Lac. Erot. 162. - xanthosomus, Lac. Erot. 162.

Columbia.

Striæ sub-gemellate; form convex; thorax punctate.

#### Mycotretus cœlestinus.\*

Mycotretus calestinus, Lac. Erot. 170.

Columbia.

The coloration is that of Callischyrus venustus, but the mentum is pentagonal, though produced into an acute point in front; no coxal lines visible; antennæ long, club 3-jointed, joints large and quadrate.

### Mycotretus quatuordecimguttatus.

Mycotretus 14-guttatus, Lac. Erot. 163. Columbia, Para.

440 (64)

Lacordaire's description does not entirely agree with the type: the scutellum is red, and the 7th elytral spot nowhere reaches the apex. The coxal lines are well marked, interstices almost smooth.

Var. ? conjunctus. Form and punctuation similar, the three pairs of spots coalesce transversely, the 1st and 2nd pair being

further joined by a small longitudinal mark.

# Mycotretus pecari.

Mycotretus pecari, Lac. Erot. 167.

Columbia.

I have seen only the variety without the apical spot, it is evidently very nearly allied to M. 14-guttatus.

### Mycotretus sedecimguttatus.

Ischyrus 16-guttatus, Guér. Icon. R. A. Ins. 310 (1846). N. Granada.

Interstitial punctuation very fine.

### Mycotretus scalaris.

Mycotretus scalaris, Lac. Erot. 168. Columbia.

Interstices visibly punctate, metasternum at the sides more strongly punctate. This is near M. conjunctus in markings, except that in the type they are testaceous red, but this may be the result of immaturity.

#### Mycotretus illustris, sp. n.

Oblongo-ovatus, sat latus, paulo depressus, testaceus, ubique subtiliter parce punctulatus, subtus fere lævis; elytris albidis, sutura tenuissime, fasciisque 4 communibus nigris; 1 basali (in maculas 2 fracta, 1 humerali, 1 juxta-scutellari); 1 ante medium, prope marginem fracta, ad suturam dilatata; 1 pone medium, subrecta, prope marginem fracta; 1 utrinque abbreviata, lata, subapicali. L. 5 lin.

Mexico (Sallé).

The last fascia is rather an oblong black spot.

## Mycotretus psittacus.

Mycotretus psittacus, Lac. Erot. 167.

Mexico.

My specimen agrees precisely with the description, but is labelled "Bahia." Interstitial punctuation very faint. Coloration of Callischyrus amænus.

### Mycotretus Guatemalæ, sp. n.

M. psittaco affinis, sed paulo angustior, fascia apicali latiore, fascia basali integra, punctisque 2 in basin nigris. L. 41 lin.

Guatemala.

# Mycotretus polyophthalmus.

Mycotretus polyophthalmus, Lac. Erot. 163.

Cayenne, Venezuela,

Elytra strongly punctate-striate, with the extreme apex sometimes testaceous.

#### Mycotretus bisseptemguttatus, sp. n.

M. polyophthalmo proximus, sed thorace scutelloque totis rufo-testaceis, elytrisque singulis maculis albis 7; 2 basalibus (1 subhumerali), 2 ante medium, 2 pone medium, 1 subapicali (apice ipso nigro). L. 31 lin.

Cayenne.

The spots are large and arranged transversely, not obliquely as in M. polyophthalmus.

#### Mycotretus ocellatus.

Erotylus ocellatus, Germ. Ins. Sp. Nov. 613 (1824). 12-guttatus, Dup. Erot. 24, T. II. f. 38 (1825). Mycotretus \_\_\_\_\_, Lac. Erot. 164. Brazil, Fonteboa (Bates), St Catherina, Pebas. Interstitial punctuation very fine, obsolete,

## Mycotretus hilaris.

Mycotretus hilaris, Lac. Erot. 171. Brazil.

#### Mycotretus sannio.

Mycotretus sannio, Lac. Erot. 169.

Brazil.

My specimen is more mature and darker, being of a brownish red with paler markings, the thorax also is distinctly punctulate. I regard it as a variety of M. hilaris.

#### Mycotretus æstuans.

Mycotretus æstuans, Lac. Erot. 170.

Brazil.

I have not seen the type, but identify a specimen communicated by Mr Sheppard with this species. Further material would in all probability unite it with M. hilaris.

### Mycotretus decoratus.

Erotylus decoratus, Dup. Erot. 21, T. II. f. 32.

Mycotretus decoratus, Lac. Erot. 172.

Ega, St Paulo (Bates).

Very finely and sparingly punctate; maxillary palpi extremely dilated.

### Mycotretus decorus, sp. n.

M. decorato valde affinis, sed thorace crebrius fortiusque punctato, elytrorumque signatura differt. Thorax maculis 2 approximatis anticis elongatis, fasciaque basali (utrinque usque ad medium producta), nigris. Elytra ubique tenue nigro marginato, fasciis tribus nigris marginem attingentibus, 1 basali (macula humerali, basalique arcuata includente); 1 pone medium, (e maculis, 2—3 compositis), 1 subapicali integra. L. 3 lin.

Ega (Bates).

This varies in the development of the marks on the thorax, and in having the medial fascia of the elytra entire or broken up into spots.

#### Mycotretus separandus, sp. n.

M. decorato affinis, thorace paulo breviore, subtilius punctato, elytris fascia basali integra (punctis 2 minimis flavis includente) punctis 2 oblique positis pone medium, apiceque triangulariter, nigris. L. 3 lin.

Ega (Bates).

This may prove to be a variety of the preceding.

### Mycotretus Egæ, sp. n.

Oblongo-ovatus, læte fulvus, antennis nigris, capite macula verticali, thorace punctis 4 (2 anticis approximatis, 2 discoidalibus remotis) fasciaque abbreviata basali nigris; clytris nigris, margine anguste, apice late fulvis, capite thoraceque parce obsoletius punctatis, clytris subtilissime alutaceis, tenue seriatim punctatis, interstitiis parcissime subtilissime punctulatis. L. 2<sup>3</sup>/<sub>4</sub> lin,

Ega (Bates).

Resembles M. decoratus in the thorax but very distinct by the elytra.

### Mycotretus brasilianus, sp. n.

Oblongo-ovatus, postice paulo angustatus, fulvotestaceus, antennis, capite, thorace antice, postice punctisque 4, elytrisque (fascia media excepta) nigris; capite thoraceque erebre punctatis, hoc punctis 4 discoidalibus inter se remotis nigris; elytris punctato

striatis, interstitiis parce punctulatis, nigris, fascia angusta denticulata integra in medio flava; epipleuris nigris, medio flavo. L.  $2\frac{3}{4}$  lin.

Brazil.

## Mycotretus signatellus, sp. n.

Subovatus, sat convexus, fulvo-testaceus, capite postice antennisque (basi excepta) nigris; capite thoraceque crebrius punctatis, hoc breviore, macula majori discoidali, punctoque utrinque nigris; elytris ubique tenue nigro-marginatis; macula quadrata scutellari (postice emarginato) altera humerali, fascia sat lata paulo pone medium, apiceque nigris. L. 2½ lin.

Ega (Bates).

Var. imperfecta. Thorace punctis 4 discoidalibus nigris; scutello rufo, elytris singulis macula humerali juxta-scutellarique, macula magna quadrata pone medium, altera triangulari subapicali. L.  $2\frac{1}{4}$  lin.

Para (Bates).

### Mycotretus jocosus.\*

Mycotretus jocosus, Lac. Erot. 173. Brazil?

#### Mycotretus reticulatus, sp. n.

Oblongo ovatus, testaceus, antennis pedibusque albidis; capite thoraceque punctulatis, elytris tenue punctato-striatis, interstitiis subtilissime parce punctulatis, rufo-testaceis anguste albido-reticulatis. L. 4 lin.

Ega (Bates).

Coxal lines present, metasternum with the sides punctate; the elytra may be regarded as whitish yellow, with the suture and margin narrowly, the apex, and each with 5 spots testaceous red, 1 humeral, on the callus; 1 immediately under it; 1 elongate parallel to the suture, and to the 2 preceding; 1 transverse broad just beyond the middle, 1 narrow transverse subapical.

#### Mycotretus psylloboroides, sp. n.

Oblongo-ovatus, albidus, antennis (basi excepto) nigris; capite thoraceque punctulatis; elytris punctato-striatis, interstitiis subtilissime punctulatis, singulis maculis 4 angularibus nigris; 2 basalibus elongatis, 1 subquadrata in medio, 1 triangulari subapicali; corpore subtus sublævi. L. 34 lin.

Ega (Bates).

The two basal spots look like one quadrate spot divided diagonally; none of the spots reach the margin, and the pale colour is everywhere of the same width.

## Mycotretus tricolor, sp. n.

Oblongo-ovatus, sat latus, subdepressus, læte rufo-testaceus, elytris nigris, fascia subapicali albida; capite thoraceque punctulatis, elytris tenue punctato-striatis, interstitiis subtilissime punctulatis, metasterno lateribus punctulatis. L. 4½ lin. Ega (Bates).

The antennæ are rather long, the club jointed and loose, almost

dentate within.

### Mycotretus dimidiatus, sp. n.

Ovatus, niger, nitidus, elypeo, labro, macula utrinque prope oculos, antennis basi, tarsis, abdomineque ochraceis; prosterno pectoreque obsolete rufo-signatis; elytris dimidio basali late flavo, punctato-striatis, interstitiis subtiliter punctulatis. L. 4 lin.

Ega (Bates).

This is less depressed than the preceding group of species. Metasternum with the sides sparingly punctate.

#### Mycotretus rhodosomus.

Mycotretus rhodosomus, Lac. Erot. 166.

Progil

Depressed, opaque, antennal club 3-jointed, posterior tibiæ conspicuously incurved.

#### Mycotretus flavomarginatus.

Mycotretus flavomarginatus, Lac. Erot. 157.

Rio Janeiro.

Interstices very broad, hardly punctulate; posterior coxal lines absent. Allied to M. rhodosomus and with similar tibiae.

#### Mycotretus dorsofasciatus.

Mycotretus dorsofasciatus, Lac. Erot. 173.

Brazil.

Elytra with an opaline lustre, interstices finely transversely wrinkled; body beneath very finely and sparingly pubescent.

#### Mycotretus opalescens, sp. n.

M. dorsofasciato proximus, capite postice nigricante, thorace punctis 4 discoidalibus (2 internis majoribus) elytris fascia basali [puncto subhumerali testaceo (alteraque pone medium) postice indefinitâ] nigris. L. 2½ lin.

Santarem, Ega, S. Paulo (Bates).

Finely pubescent beneath. This is much more opalescent than *M. dorsofusciatus*; the basal fascia is sometimes reduced to a black hundle enclosing the shoulder, and the subapical one to a narrow line. Accords with *M. pelliciens*, Kirsch, *in coll*.

### Mycotretus nitescens, sp. n.

M. opalescenti affinis, sed totus rufo-sanguineus, antennis clava infuscata. L. 2 lin.

Ega (Bates).

This may be an uncoloured variety, but appears perfectly mature: the form and punctuation are identical with M. opalescens.

### Mycotretus sericeonitens, sp. n.

Subovatus, niger, fulvo-varius, sericeo-nitens; antennis subelongatis, clava nigra, capite nigro, punctulato, labro rufo; thorace subtiliter punctulato, fulvo, lateribus rotundatis, angustissime piceo-marginatis, disco macula magna difformi nigra, antice posticeque marginem attingente; scutello nigro, lævi; elytris obsolete punctato-striatis, interstitiis fere lævibus, fulvis, macula humerali irregulari, fasciaque sat lata communi pone medium nigris; corpore subtus tenuiter pubescenti, pedibus, abdomine, prosterni epipleuris, metasterni lateribus episternisque testaceis. L. 21 lin.

Ega (Bates).

Var. monticola. Capite antice rufo, thorace punctis 2 anticis, 3 posticis, nigris; elytris obsolete seriatim punctatis, interstitiis crebrius punctatis, fascia subapicali angustiore. L. 2½ lin.

Ecuador (Buckley).

### Mycotretus balteatus, sp. n.

Subovatus, sat convexus, niger, elytris rufo-testaceis apice nigro, abdomine metasternique lateribus testaceis; capite thoraceque crebre punctulatis, hoc lateribus subrectis, macula obsoleta rufa angulos anticos versus; scutello rufo, punctulato; elytris tenuiter seriatim punctatis, interstitiis evidentius punctulatis; corpore subtus leviter pubescente. L. 21 lin.

Ega (Bates).

# Mycotretus rastratus, sp. n.

Oblongo-ovatus, testaceus, antennis elongatis nigris (basi excepto); capite thoraceque subtiliter punctulatis, hoc basi sinuato; elytris subtilissime obsolete rugosulis, tenue obsoleteque striatopunctatis, interstitiis parce punctulatis, paulo opalescentibus; metasterno lateribus punctatis, linea coxali posteriori nulla.  $3\frac{1}{3}$  lin.

S. Paulo (Bates).

## Mycotretus nugator.\*

Mycotretus nugator, Lac. Erot. 174. Cayenne.

### Mycotretus sticticollis.\*

Mycotretus sticticollis, Lac. Erot. 174. Cayenne.

### Mycotretus vilis.\*

Mycotretus vilis, Lac. Erot. 174. Cavenne.

### Mycotretus Peruæ, sp. n.

Ovatus, subdepressus, albidus, pectore, abdomine, elytrisque nigris, antennis clava infuscata, thorace macula antica bilobata, punctoque ante scutellum nigris; capite thoraceque parce punctulatis, elytris obsoletius punctato-striatis, interstitiis parce punctu-L. 2 lin. latis.

Peru (Janson).

Very near M. vilis and with similarly dilated palpi.

### Mycotretus partitus.

Mycotretus partitus, Lac. Erot. 176.

Columbia.

Thorax thickly and clearly punctate; elytra faintly punctatestriate, interstices evidently punctate; ventral segments punctulate; metasternum coarsely punctate.

## Mycotretus lacertosus."

Mycotretus lacertosus, Lac. Erot. 176. Cayenne.

## Mycotretus pulchellus.\*

Mycotretus pulchellus, Lac. Erot. 177.

Rio Janeiro.

Rather deeply punctate-striate, interstices faintly punctulate, under-side smooth.

## Mycotretus lepidus.

Mycotretus lepidus, Lac. Erot. 178.

Cayenne, Tapajos (Bates), Ecuador (Buckley).

Clearly punctate-striate, interstices scarcely punctulate. The specimens from Ecuador are larger and finer.

#### Mycotretus Chontalesi.

Mycotretus Chontalesi, Crotch, Cist. Ent. 145. Nicaragua (Janson).

### Mycotretus misellus.

Mycotretus misellus, Lac. Erot. 183. N. Granada. Underside smooth.

### Mycotretus triplacoides, sp. n.

Oblongo-ovatus, subcylindricus, rufo-testaceus, pedibus ochraceis, vertice antennisque clava infuscatis, thorace piceo, angulis anticis rufis, distincte punctato, elytris punctato-striatis, interstitiis parce punctulatis, nigris, tertia basali epipleurisque rufo-testaceis, corpore subtus levi. L. 24 lin.

Santarem (Bates).

### Mycotretus fulvilabris, sp. n.

Oblongo-ovatus, niger, labro, antennis basi, metasterno lateribus obscure, abdomine elytrisque fulvo-testaceis; capite thoraceque parce punctulatis; scutello rufo; elytris tenuissime seriatim punctatis, interstitiis subtiliter punctulatis; corpore subtus lævi. L. 3 lin.

S. Paulo (Bates).

### Mycotretus fulviceps, sp. n.

Oblongo-ovatus, rufo-fulvus, antennis (articulo 1° excepto) thorace pedibusque nigris; thorace parce punctulato, lateribus paulo rotundatis, angulis anticis obscure, utrinque puncto obsoletissimo basali, rufis; elytris confertim punctato-striatis, interstitiis parce subtilissime punctulatis; corpore subtus punctulato, metasterno lateribus parce haud fortiter punctatis. L. 4 lin.

Santarem (Bates).

### Mycotretus cinctellus.

Brachymerus cinctellus, Guér. R. Z. 1841, 153. Mycotretus — , Lac. Erot. 178.

Columbia, Ega (Bates), Bolivia.

Interstices visibly and thickly punctate; metasternum and episterna deeply punctate.

## Mycotretus cyanopterus.

Mycotretus cyanopterus, Lac. Erot. 179.

Interstices of elytra clearly punctate; ventral segments and metasternum rather deeply so.

### Mycotretus melanophthalmus.

Erotylus melanophthalmus, Dup. Erot. 36, T. III. f. 70. Mucrotretus —————, Lac. Erot. 179.

Brazil.

Elytral interstices and under-side strongly punctate.

### Mycotretus fuscitarsis.

Mycrotretus fuscitarsis, Lac. Erot. 180.

Mexico.

Very closely allied to M. melanophthalmus.

#### Mycotretus nigroterminatus.

Mycrotretus nigroterminatus, Lac. Erot. 180.

Columbia.

The elytral interstices and under-side are strongly punctate.

### Mycotretus gemmula.

Mycotretus gemmula, Lac. Erot. 181.

—— pulicarius, Lac. Erot. 182. —— gentilis, Lac. Erot. 182.

Columbia, Peru (Janson).

M. gentilis does not differ from M. gemmula; M. pulicarius has the disc of the thorax black.

# Mycotretus apicalis.

Mycotretus apicalis, Lac. Erot. 181.

Columbia, Peru (Janson).

Very variable in size  $(1\frac{1}{2}-2\frac{1}{4}$  lin.). The elytral interstices are finely punctured.

## Mycotretus corallipennis, sp. n.

M. apicali affinis, elytrorum interstitiis fortius punctatis, thoraceque toto nigro distinctus. L. 2 lin.

Venezuela, N. Granada.

This may be a variety of the preceding species, but it differs somewhat in sculpture; varieties occur with a black apex to the elytra.

## Mycotretus adalioides, sp. n.

Late ovatus, subdepressus, niger, antennis basi, thorace angulis anticis macula quadrata albidus, elytris tertia basali maculaque sat magna subapicali rufis, seriatim punctatis, interstitiis confertim punctatis. L. 2 lin. Peru (Janson).

Prosternum, abdomen, tibiæ and tarsi pale ochreous; metasternum sparingly and faintly punctate. Antennæ with a strong 3-jointed club.

# Mycotretus miniatus.\*

Mucotretus miniatus, Lac. Erot. 183.

Mexico.

Metasternum coarsely punctate.

### Micotretus dytiscoides.

Mucotretus dutiscoides, Lac, Erot. 184.

Mexico.

Metasternum sparingly but very coarsely punctate.

## Mycotretus terminalis.

Mucotretus terminalis, Lac. Erot. 134.

Brazil, Rio Janeiro.

Metasternum finely and rather thickly, sides deeply, punctate. Coxal lines present,

### Mycotretus intermedius.\*

Mucotretus intermedius, Lac. Erot. 135. Brazil. Rio Janeiro.

## Mycotretus difficilis.\*

Mycotretus difficilis, Lac. Erot. 136. Brazil.

#### Mycotretus ornatus.

Erotulus ornatus, Dup. Erot. 20, T. II. f. 31. Mycotretus —, Lac. Erot. 137. Brazil.

#### Mycotretus maculosus.

Erotulus maculosus, Dup. Erot. 23, T. II. f. 36. Mucotretus ———, Lac. Erot. 140.

Rio Janeiro.

#### Mycotretus dubius.\*

Mycotretus dubius, Lac. Erot. 141.

Brazil.

The type has cloudy markings which accord precisely with those of M. maculosus.

## Mycotretus coronatus.\*

Erotylus coronatus, Dup. Erot. 21, T. II. f. 33.

Mycotretus ———, Lac. Erot. 141.

Brazil.

# Mycotretus nigropunctatus.

## Mycotretus graphoderus.

Mycotretus graphoderus, Lac. Erot. 144. Brazil.

## Mycotretus cognatus.

Mycotretus cognatus, Lac. Erot. 145.

Rio Janeiro.

[The preceding ten species agree, it appears to me, in all structural characters, and I am quite unable to separate them satisfactorily; all of them are apparently natives of South Brazil.]

### Mycotretus melanostictus.

Mycotretus melanostictus, Lac. Erot. 139.

Columbia.

Very closely allied to the preceding group and scarcely specifically distinct from them.

### Mycotretus quadripunctatus, sp. n.

Subovatus, læte fulvus, antennis (articulis 1—2 exceptis), geniculis, tibiis, tarsis, capitis puncto verticali, thoracis marginibus tenue, punctisque 4 in serie transversali discoidali, elytrorum fasciisque 2 (1 basali, 1 pone medium) nigris; capite thoraceque confertim subtiliter punctatis, elytris punctato-striatis, interstitiis crebre punctatis; corpore subtus punctulato, metasterno lateribus fortius punctato. L. 4 lin.

N. Peru (Bates).

Antennæ longer than the base of the thorax, ninth joint elongate-quadrate. Allied to M. terminalis.

### Mycotretus Godarti.

Abdomen beneath shining, punctate, metasternum sparingly and finely, sides more deeply punctate; coxal lines visible.

M. posticus has lost the spots on the thorax and at the base

of the elytra.

### Mycotretus Devrollii, sp. n.

Oblongo-ovatus, fulvus, antennis pedibus pectoreque nigris; capite crebre sat profunde punctato, thorace minus crebre punctato, punctis 6 nigris (2 anticis, 4 basalibus), scutello nigro; elvtris punctato-striatis, interstitiis parce subtilissime punctulatis, macula oblonga discoidali sat magna ante medium ; corpore subtus punctulato, metasterno lateribus parcissime punctatis. L. 23 lin.

St Catharina.

## Mycotretus tigrinus.

Erotylus tigrinus, Oliv. Enc. Méth. vi. 437 (1791).

Mycotretus - , Lac. Erot. 145.

leopardus, Kirsch in litt.

Cayenne, St Paulo, Ega (Bates). Finely punctate, striæ sub-gemellate; beneath sparingly punctate. The mentum is decidedly rounded in front, and this has led Kirsch to consider it a new species.

Var. pardalis. Elytris maculis majoribus, magis approximatis; elytris interstitiis distinctius punctatis. L. 3-31 lin.

Peru (Janson), Ecuador (Buckley), St Paulo (Bates).

## Mycotretus singularis.

Mycotretus singularis, Lac. Erot. 148.

Columbia.

Finely punctate-striate; surface alutaceous, very finely punctulate.

#### Mycotretus trabeatus.

Mycotretus trabeatus, Lac. Erot. 148.

Columbia.

Apparently more strongly punctate than M. singularis, and always fulvous in colour, but possibly only a variety of it.

### Mycotretus tigratus.

Mycotretus tigratus, Lac. Erot. 150.

nigrocinctus, Lac. Erot. 151. Very near M. trabeatus, and perhaps only a small variety of it. M. nigrocinctus has lost the elytral spot, retaining only the band. Columbia.

## Mycotretus clitelliger.

Mycotretus clitelliger, Lac. Erot, 149.

Columbia.

Differs from M. trabeatus in having the thorax with four spots.

## Mycotretus succinctus, sp. n.

Subovatus, læte fulvus, antennis pedibus capite elytrisque nigris; capite confertim punctulato, labro rufo; thorace brevi, lateribus subrectis, confertim subtiliter punctulato, punctis 2 utrinque discoidalibus nigris, paulo oblique positis, basi tenuissime nigro; elytris punctato-striatis, interstitiis confertim subtiliter punctulatis, cum epipleuris nigris, fascia lata fulva pone medium (puncto parvo nigro notato); corpore subtus punctulato, metasterno lateribus fortiter profunde punctato. L. 23 lin.

N. Granada (Reiche).

Allied to M. clitelliger, but the 4 spots on the thorax form 2 pairs remote from each other; the elytral fascia is interrupted at the suture.

### Mycotretus fasciolatus.

Mycotretus fasciolatus, Lac. Erot. 150.

Mexico.

Interstices of elytra very faintly punctulate, metasternum rather deeply punctate at the sides; antennæ with a 3-jointed club.

## Mycotretus cruciger, sp. n.

Subovatus, falvus, capite puncto verticali, thorace punctis majoribus 4 (1 antico, 1 utrinque discoidali, oblongo basin attingente, 1 basali ante scutellum) nigris; capite thoraceque crebre subtiliter punctulatis; elytris rufo-piceis, margine externo et basali fulvis, punctato-striatis, interstitiis tenuissime punctulatis; corpore subtus punctato, metasterno lateribus fortiter profunde punctatis. L. 3 lin.

Habitat ——?

The yellow margin of the clytra extends along the base and partly down the suture.

## Mycotretus Sallæi, sp. n.

Ovatus, antice posticeque paulo acuminatus, fulvus, antennis, capite puncto verticali, thorace maculis 3 discoidalibus, elytris macula magna subquadrata ante medium, nigris; capite thoraceque alutaceis, subtiliter punctulatis; elytris alutaceis, obsolete seriatim punctatis, interstitiis omnium subtilissime punctulatis; metasterno lateribus punctis majoribus impressis. L. 3¼ lin.

Mexico (Sallé).

#### Mycotretus dorsonotatus.

Mucotretus dorsonotatus, Lac. Erot. 151.

Cayenne, Ega, St Paulo (Bates).

The punctuation is very curious, being frequently gemellate on the elytra, the interstices elevated. The scutellum and a small dot on the anterior and posterior margin of the thorax black. Ventral segments and sides of metasternum deeply punctured.

## Mycotretus durius.

Mycotretus durius, Lac. Erot. 161. Cavenne, Ega (Bates), Upper Amazon.

The palpi are somewhat dilated, but the peculiar punctuation evidently approximates this species to M. dorsonotatus. Lacordaire's type is nearly unicolorous, but my specimens have the elytra with four rows of quadrate brown spots on the alternate interstices; antennæ with the 8th joint conspicuously dilated.

### Mycotretus parallelus, sp. n.

Oblongus, subparallelus, nitidus, læte fulvus, elytris ochraceis, antennis clava punctoque verticali nigris, thorace subtransverso, lateribus rectis, margine antico infuscato, punctis 3 discoidalibus nigris, parce punctato; scutello nigro, punctulato; elytris tenue punctato-striatis, interstitiis vix punctulatis; corpore subtus lævi. L. 31 lin.

Ega (Bates).

In my specimen the elytra are slightly infuscate with a pale narrow band before the middle, but this I think probably accidental.

# Mycotretus graniformis.\*

Mycotretus graniformis, Lac. Erot. 152.

Head and thorax sparingly, visibly punctate, elytra rather deeply punctate-striate, interstices very finely punctulate: underside shining, faintly punctate.

### Mycotretus episcopalis.

Mycotretus episcopalis, Lac. Erot. 152. Cayenne.

#### Mycotretus fallax.

Mycotretus fallax, Guér. R. Z. 1841, 155. \_\_\_\_, Lac. Erot. 153.

Brazil, Rio Janeiro.

Interstices of the elytra very finely punctulate; sides of the metasternum and episterna coarsely punctate. This species has exactly the appearance of an *Ischyrus*; 8th joint of antennæ scarcely dilated.

## Mycotretus scitulus.

Mycotretus scitulus, Lac. Erot. 154.

Rio Janeiro, Bogota, Mexico, Ega (Bates).

Elytra clearly punctate-striate, interstices sparingly punctulate; 8th joint of antennæ black and slightly dilated.

### Mycotretus puncticeps, sp. n.

Mycotretus puncticeps, Kirsch in litteris.

Oblongo-ovatus, fulvus, antennis clava, capite puncto verticali, thorace punctis 6 (2 anticis 4 discoidalibus in linea arcuata), elytris epipleuris fasciisque 2 externe abbreviatis (1 basali, puncto flavo juxta scutellari includente, 1 paulo pone medium subtriangulari) nigris; capite thoraceque crebre evidenter punctatis; elytris profundius punctato striatis, interstitiis parcissime punctulatis; corpore subtus lævi. L. 3 lin.

N. Granada.

Thorax with a few deeper punctures in the basal sinuation; epipleuræ black except just at the base.

# Mycotretus nigrotinctus, sp. n.

M. puncticipiti valde affinis, sed minor, capite antice nigro, linea verticali nigro, thorace punctis 2 anticis connectis, elytris epipleuris totis nigris, interstitiis crebrius punctulatis, pedibusque nigris. L.  $2^1_4$  lin.

Teapa (Chevrolat).

#### Mycotretus læviventris, sp. n.

M. puncticipiti iterum affinis, sed paulo latior et subtilius punctatus; thorace punctis 2 mediis basin attingente; scutello rubro, fasciis elytrorum liberis, ad suturam interruptis, interstitiis alutaceis, subtilissime parce punctulatis; epipleuris fulvis. L. 3 lin.

Mexico.

### Mycotretus chilensis, sp. n.

. M. leviventri proximus, sed thorace ut in M. puncticipiti signato, capite concolore, fasciis elytrorum latioribus, per suturam junctis, denticulatis, epipleuris flavis distinctus. L.  $2\frac{1}{2}$  lin.

Chili.

Elytra faintly punctate-striate, interstices alutaceous, finely and rather sparingly punctulate.

### Mycotretus minutus.

Erotylus minutus, Dup. Erot. 25, T. II. f. 45. Mycotretus —— , Lac. Erot. 154. —— quadrinus, Lac. Erot. 155.

Brazil.

## Mycotretus Lesueuri.

Eroty'us Lesueuri, Chev. Col. Mex. II. 175. Mycotretus ———, Lac. Erot. 155.

Mexico (Chevrolat).

Convex, frontal suture indicated by an oblique line on each side; elytra with interstices rather closely punctate.

### Mycotretus Savignyi.

Mycotretus Savignyi, Lac. Erot. 156.

————————, Crotch, Cist. Ent. 145.

Columbia, Nicaragua (Janson).

Very near M. Lesueuri, but elytra with interstitial punctuation faint and the legs red.

## Mycotretus pygmæus.

# Mycotretus cordiger, sp. n.

Ovatus, sat convexus, antennarum elava, capitis puncto verticali, thoracis punctis 2 discoidalibus, scutello, elytrorumque macula magna discoidali communi cordata, nigris; capite thoraceque parce subtiliter punctulatis, loc tenuissime nigro-marginato, lateribus subrectis, puncto parvo basali cum scutello nigro confluente; elytris punctato-striatis tenue nigro-marginatis, interstitiis crebre subtiliter punctulatis, corpore subtus punctato, metasterno lateribus fortiter punctato. L. 3 lin. Ega (Bates).

### Mycotretus lissomoides, sp. n.

Oblongo-ovatus, convexus postice angustatus, nitidissimus, rufo-fulvus, antennis clava, thorace punctis 7, scutello, elytrisque macula magna oblonga communi, nigris; capite thoraceque sat crebre fortiter punctatis, hoc punctis 2 anticis, 5 basalibus (medio triangulari); scutello nigro, punctulato; elytris tenue punctato-striatis, interstitiis lævibus; corpore subtus lævi. L.  $2\frac{1}{2}$  lin.

Ega (Bates).

### Mycotretus magus.\*

Mycotretus magus, Lac. Erot. 184. Brazil.

#### Mycotretus floriger.

Mycotretus floriger, Lac. Erot. 185. Cavenne.

Elytra with the interstices nearly smooth.

## Mycotretus episcaphoides, sp. n.

Oblongo-ovatus, subdepressus, obscure rufus, antennis clava elytrisque nigris (his flavo-fasciatis), pedibus pallidioribus; capite thoraceque evidenter punctulatis, hoc lateribus leviter rotundatis; scutello rufo, levi; elytris alutaceis sat profunde punctato-stratis, interstitiis parcissime vix visibiliter punctulatis, nigris, fascia angusta subdenticulata prope basin, ad scutellum currente, altera recta angusta subapicali, flavis; corpore subtus lævi. L.  $3\frac{1}{2}$  lin.

Ega (Bates).

Allied to M. floriger.

## Mycotretus sobrinus.

Brachymerus sobrinus, Guér. R. Z. 1841, 154.

Mycotretus ——, Lac. Erot. 186.

silaceus, Lac, Erot. 187.

Brazil.

Metasternum deeply and coarsely punctate. M. silaceus does not differ perceptibly from the ordinary form of the species.

#### Mycotretus sanguineus.

### Mycotretus bistrigatus.

Mycotretus bistrigatus, Lac. Erot. 188.

Mexico.

Elytra very finely punctate-striate, interstices faintly punctulate; under-side smooth; elytra black, with a curved fulvous mark at the base and apex.

### Mycotretus pusillus.

Mycotretus pusillus, Lac. Erot. 188.

Cavenne.

Thorax clearly punctate; sides of metasternum coarsely punctured.

## Mycotretus luteipes.

Mycotretus luteipes, Lac. Erot. 189. Mexico.

## Mycotretus ambulator.\*

Mycotretus ambulator, Lac. Erot. 175. Cavenne. The maxillary palpi are very little dilated.

## Mycotretus humeralis.\*

Erotylus humeralis, Germ. Ins. Sp. Nov. 614. Mycotretus - , Lac. Erot. 189. Brazil.

### Mycotretus humilis.\*

Mycotretus humilis, Lac. Erot. 189. Cayenne.

### Mycotretus distigma.\*

Mycotretus distigma, Lac. Erot. 190. Columbia.

Elytra extremely obsoletely seriate-punctate, interstices smooth; thorax very finely punctulate.

# Mycotretus hepaticus.\*

Mycotretus hepaticus, Lac. Erot. 190. Columbia.

I have not seen this species.

## Mycotretus mycetophagoides, sp. n.

Subovatus, rufo-testaceus, antennis clava elytrisque nigris, his singulis maculis 2 flavis (1 in tertiam basalem, obliqua, 1 transversa majore, apicem versus); capite thoraceque subtiliter distincte punctatis; scutello rufo, lævi; elytris punctato-striatis, interstitiis subtiliter punctulatis, epipleuris nigris; corpore subtus lævi.  $2\frac{1}{4}$  lin.

Para (Bates).

Var. ? erythrocerus. Major, antennis totis rufis, elytris macula antica nulla, postica lineari. L. 21 lin.

Tapagos (Bates).

### Mycotretus mycetophiloides, sp. n.

Subovatus, subdepressus, supra niger, subtus testaceus, capite antice testaceo, parce punctulato; thorace brevi subtiliter punctulato, lateribus subrectis, angulis anticis irregulariter flavis; scutello punctulato, elytris punctato-striatis, interstitiis subtilissime punctulatis, singulis fascia angusta obliqua fulva basin versus; corpore subtus levi. L.  $2\frac{1}{4}$  in.

Ega (Bates).

Var. careus. Elytris unicoloribus.

## Mycotretus coccineus.

Lybas coccineus, Lac. Erot. 239.

Rio Janeiro, Brazil, Ega and Fonteboa (Bates).

Metasternum deeply punctate at the sides; scutellum large, punctate.

Distinct from the other Mycotreti by its convex sub-hemispherical form.

#### Mycotretus sanguinosus, sp. n.

M. coccineo proximus, sed major, elytris interstitiis crebrius evidentius punctulatis, metasterno lateribus minus fortiter punctatis distinctus. L.  $2\frac{1}{4}$  lin.

N. Granada.

## Mycotretus rufilabris.\*

Tritoma rufilabris, Lac. Erot. 222,

Brazil (Turin).

This is certainly a Mycotretus.

### Mycotretus limbatus.

Tritoma limbata, Lac. Erot. 223.

Brazil, Ega, St Paulo (Bates).

Metasternum deeply punctate at the sides. Thorax not margined at the base, and the only species of the genus which I have seen presenting this character.

### Mycotretus tesserarius.\*

Mycotretus tesserarius, Lac. Erot. 191. Columbia.

# Mycotretus (?) xanthomelas, sp. n.

Oblongo-ovatus, obscure testaceus, antennis (basi excepto) punctisque 3 in vertice nigris; capite antice crebre, postice parce, punctato; thorace fortius parcius punctato, lateribus rotundatis, nigro, angulis anticis late, maculisque 2 discoidalibus flavis; scutello nigro, punctulato; elytris profunde punctato-striatis, interstitiis parce punctatis, nigris, lunulâ humerali parvâ fasciisque 3 læte flavis (1 basali, puncto juxta scutellari includente, 1 in medio, 1 latiore apicem versus), ad suturam interruptis; corpore subtus punctulato. L. 5 lin.

Para (Chevrolat).

Metasternum deeply punctate; episterna smooth; no coxal lines.

# Mycotretus sanguinipennis.\*

Tritoma sanguinipennis, Say, J. Acad. Phil. IV. 89.

Mycotretus — , Crotch, Tr. Am. Ent. Soc. 1873, 354. Georgia, Ohio, Illinois, New York, Washington, Pennsylvania.

# Mycotretus pulcher.\*

Tritoma pulchrum, Say, J. Acad. Phil. v. 301.

---- eincta, Lac. Erot. 223.

Mycotretus pulchra, Crotch, Tr. Am. Ent. Soc. 1873, 354.

Var. Erotylus dimidiatus, Lac. Erot. 225.

Tritoma basale, Melsh. Pr. Phil. III. 175.

Nova Scotia, Pennsylvania, Washington.

### Mycotretus dissimulator.\*

Mycotretus dissimulator, Crotch, Tr. Am. Ent. Soc. 1873, 355. Illinois.

### Cyrtotriplax.

Crotch, Ent. Mo. Mag. ix. 189.—Tr. Am. Ent. Soc. 1873, 355 (typ. bipustulata, F.).

#### [Tritoma, Fab.—nec Geoffr.]

This genus is widely scattered over the northern hemisphere, and I have referred to it some doubtful species from the Malay Archipelago.

The two Brazilian species given by Lacordaire are Mycotreti.

T. bifaciens, Walker = Cychramus, T. proposita, Walker =

Amblyopus-?

### Cyrtotriplax bipustulata.

\_\_\_\_\_\_, Lac. Erot. 221. \_\_\_\_\_\_, Bedel, Abeille, v. 40.

Europe, in Boleti and Polypori.

## Cyrtotriplax humeralis.

Tritoma humerale, Fab. Syst. El. II. 571.

Triplax taniata, Lec. J. Phil. (2) 1. 71.—Pr. Phil. vii. 162.

Var. — ruficeps, Lec. J. Ac. Phil. (2) 1. 72. Var. — vittata, Lec. J. Ac. Phil. (2) 1. 72.

Var. — aulica, Horn, Tr. Am. Ent. Soc. 1871, 343.

Europe, United States.

## Cyrtotriplax biguttata.

Tritoma biguttata, Say, J. Ac. Phil. iv. 89.

--- basalis, Lac. Erot. 225.

· Middle and Southern States of North America, abundant.

## Cyrtotriplax mimetica.

Cyrtotriplax mimetica, Crotch, Tr. Am. Ent. Soc. 1873, 355. Illinois, Georgia, Ohio, Washington.

## Cyrtotriplax Maackii, sp. n.

Ovata, nigra, nitida; capite thoraceque parce punctatis, hoc convexo, lateribus rotundatis, basi sinuato; scutello punctulato; elytris punctato-striatis, interstitiis evidentius punctulatis; abdomine punctulato, linea coxali distincta, metasterno punctulato, haud canaliculato, mesosterno punctulato, prosterno processu lato, truncato triangulari, lateribus marginatis, antice epipleuris, capiteque lateribus, fortiter rugoso-punctatis. L. 2½ lin.

Siberia (Maack).

The coxal line is visible for the intermediate coxæ as well.

# Cyrtotriplax erythrocephala.

Tritoma erythrocephala, Lac. Erot. 226. Cyrtotriplax ——— , Crotch, Tr. Am. Ent. Soc. 1873, 356. Georgia, Missouri.

## Cyrtotriplax atriventris.

Triplax atriventris, Lec. J. Phil. (2) 1. 71.—Pr. Phil. VII. 162. Cyrtotriplax ——, Crotch, Tr. Am. Ent. Soc. 1873, 356. Georgia, Texas, Missouri.

#### Cyrtotriplax angulata.

Tritoma angulata, Say, J. Phil. v. 300.

—— flavipes, Lac. Erot. 226.

Var. Tritoma brunnea, Lac. Erot. 222.

Cyrtotriplax flavipes, Crotch, Tr. Am. Ent. Soc. 1873, 356. Washington, New York, Pennsylvania.

# Cyrtotriplax unicolor.

Tritoma unicolor, Say, J. Phil. IV. 300.

, Lac. Erot. 220. Curtotriplax --- Crotch, Tr. Am. Ent. Soc. 1873, 356. Ohio, Tennessee, Washington, Maryland, etc.

### Cyrtotriplax affinis.

Tritoma affinis, Lac. Erot. 224. \_\_\_\_\_\_, Lec. J. Phil. (2) 1. 71.—Pr. Phil. VII. 162.

Cyrtotriplax -, Crotch, Tr. Am. Ent. Soc. 1873, 356.

Var. ? Tritoma livida, Lac. Erot. 227.

# Cvrtotriplax Lewisii.

Cyrtotriplax Lewisii, Crotch, Ent. Mo. Mag. 1x. 189. Japan.

# Cyrtotriplax consobrina.\*

Cyrtotriplax consobrina, Lewis, Ent. Mo. Mag. XI. 78. Siberia.

# Cyrtotriplax niponensis.\*

Cyrtotriplax niponensis, Lewis, Ent. Mo. Mag. XI. 78. Japan.

### Cyrtotriplax octonotata.\*

Cyrtotriplax octonotata, Bedel, Bull. Ent. Soc. Fr. 1874, exevi. Transcaucasia.

### Cyrtotriplax senegalensis, sp. n.

Breviter ovata, ferruginea, capite evidenter punctato, sutura frontali obsoleta, semicirculari; thorace crebre sat fortiter punctato, basi vix marginato; scutello vage punctato; elytris fortius punctato-striatis (striis 8), interstitiis distincte punctulatis. L. 2-21.

Senegal, Guinea (Chevrolat).

Abdomine punctulato, linea coxali marginem attingente; metasterno vage punctulato, linea coxali distincta; mesosterno transverso, subrugoso; prosterno postice late emarginato, processu lateribus marginatis, antice haud carinato, epipleuris concavis; capite subtus convexo impunctato. Antennis articulo 3º elongato.

### Cyrtotriplax (?) anisotomoides, sp. n.

Rufo-testacea, breviter ovata, antennarum clava thoraceque rufo-piceis; capite parce punctato, clypeo emarginato; thorace parce punctato, lateribus rotundatis, antice angustiore, basi immarginato, utrinque subsinuato; elytris basi immarginatis, fortius seriatim punctatis (seriebus 8), interstitiis evidentius punctulatis, prope marginem obscure piceis. L. 1½ lin.

Sarawak (Wallace).

Abdomine vage punctulato, linea coxali distincta, processu ventrali truncato; metasterno parce punctulato, brevissime setuloso, subtilissime canaliculato, episternis profunde punctatis; mesosterno subtransverso, antice depresso; prosterno compresso, elevato, antice acute producto, postice late emarginato, lateribus tenue marginatis; epipleuris levibus, concavis; capite subtus convexo, impunctato. Antennis articulo 3° elongato; palpi maxillares valde transverse dilatati.

# Cyrtotriplax (?) dentipes, sp. n.

Rufo-brunnea, breviter ovata, capite crebrius punctato, clypco semicirculariter emarginato; thorace minus crebre punctato, lateribus paulo rotundatis, antice angustiore, basi immarginato, ante scutellum lobato; elytris confuse punctatis, punctis majoribus seriatim dispositis, singulo punctis 2 flavis (1 in basi prope scutellum, 1 infra medium prope suturam). L.  $1\frac{1}{4}$  lin.

Sarawak (Wallace).

Abdomine vix setosulo, sat crebre punctato, linea coxali brevi, processu ventrali truncato; metasterno brevi, obsolete punctato, subtiliter canaliculato, linea coxali abbreviata, antice late truncato, immarginato; mesosterno valde transverso; prosterno brevi, processu elevato, marginato, postice late emarginato, margine antico elevato subcarinato; antennis articulo 3º valde elongato, clava triarticulata; oculis subtiliter granulatis.

### Cyrtotriplax (?) postica, sp. n.

Oblongo-ovata, rufa, antennarum clava elytrisque (apice excepto) nigris, nitida, capite thoraceque parce punctatis, hoc transverso, postice acuminato-producto, vix marginato, lateribus rotundatis; elytris fortius punctato-striatis (striis 7 tantum), interstitiis subtiliter punctatis, nigris, apice macula magna communi antice acuminato rufo; scutello rufescenti lævi. L. 2½ lin.

Sarawak (Wallace).

Antennis articulo 3º elongato, 8º leviter incrassato.

Abdomine tenuissime pubescente, parce punctulato, linea coxali nulla, processu ventrali lato, truncato; metasterno vage punctato, episternis lavibus, apice truncato, immarginato; mesosterno semicirculari, antice crasse marginato, postice ad metasternum arcte applicato, prosterno triangulariter elevato, postice emarginato, antice sub-acuto, immarginato; epipleuris punctatis, pro antennis concavis; capite utrinque punctato, mentum sub-elongatum, rotundatum

# Triplax.

Herbst, Käf. v. 146-1793 (typ. russica, L.).

The European and North American species are typical, those from Madagascar and Brazil are not so, and will doubtless require the establishment of at least two new generic divisions for their reception; paucity of material, however, precludes me from investigating them satisfactorily at present.

# Triplax melanocephala.

Tritoma melanocephala, Latr. Hist. Nat. XII. 39 (1804).

Triplax nigriceps, Lac. Erot. 213. melanocephala, Bed, Abeille, v. 23.

- , Crotch, Entom. v. 7.

Germany (Lacordaire), France, Spain, Italy, Algeria.

Distinct by the antennæ, of which joints 2—8 are short, equal, moniliform.

### Triplax Marseuli.

Triplax Marseuli, Bed. Abeille, v. 24.

S. France, Algeria.

Differs from T. melanocephala by the antennæ, which have the 3rd joint sub-elongate, and from T. cyanescens by the black elytra and the flat scutellum.

### Triplax cyanescens.

Triplax cyanescens, Bed. Abeille, v. 26.

melanocephala ||, Lac. Erot. 211 (nec Latr.).

Spain, Portugal, Algeria.

Distinct by the blue tint, and the punctures in the strice of the elytra.

# Triplax ænea.

Silpha ænea, Schall. Act. Hall. 1. 254 (1783).

Triplax — , Lac. Erot. 212. — , Bed. Abeille, v. 27. — , Crotch, Entom. v. 7.

Europe generally, commoner towards the north, Caucasus, E. Siberia.

T. bicolor, Marsh., is not a black variety, but merely a specimen discoloured by grease and dirt.

# Triplax Lacordairii.

England, France, Croatia, Sicily, Algeria.

Differs from its allies by its red head and thorax, while the pectus and abdomen are black.

### Triplax russica.

Silpha russica, L. S. N. Ed. x. 360 (1758).

Triplax \_\_\_\_\_, Lac. Erot. 209 (1842).
\_\_\_\_\_\_, Bed. Abeille, v. 29 (1868).
\_\_\_\_\_, Crotch, Entom. v. 7 (1870).

Europe (from Sicily to Lapland), Caucasus, Algeria, United

States (Bedel).

This is the largest species of the genus and the only one having the pectus alone black beneath.

### Triplax macra.

# Triplax frontalis.\*

Triplax frontalis, Horn, Proc. Ent. Soc. Phil. 1. 188 (1862). Texas.

# Triplax festiva.

Triplax festiva, Lac. Erot. 208.
\_\_\_\_\_\_\_\_, Lec. J. Phil. (2) 1. 71.—Proc. Phil. VII. 161.
\_\_\_\_\_\_\_, Crotch, Tr. Am. Ent. Soc. 1873, 357.
Southern States.

### Triplax antica.

Triplax antica, Lec. Proc. Phil. 1861, 358.

————————————————, Crotch, Tr. Am. Ent. Soc. 1873, 357.
Oregon.

### Triplax californica.

Triplax californica, Lec. Proc. Phil. VII. 161.
—————————————, Crotch, Tr. Am. Ent. Soc. 1873, 358.
California.

# Triplax elongata.

Triplax elongata, Lac. Erot. 210. \_\_\_\_ , Bed. Abeille, v. 31. Austria, Vienna.

Nearest in many respects to T. russica, but more elongate, entirely red beneath, and with the last joint of the palpi extremely dilated.

### Triplax scutellaris.

Triplax scutellaris, Charp. Hor. Ent. 244 (1825). ---- , Lac. Erot. 214. bicolort, Gyll. Ins. Suec. 1. 205 (nec Marsh.). \_\_\_\_\_ , Lac. Erot. 215. , Bed. Abeille, v. 32. Gyllenhalii, Crotch, Entom. v. 7.

Mountainous countries. Sweden, Lapland, France, Austria, Croatia, Dauria, L. Baikal (Maack).

The red under-side and scutellum sufficiently distinguish this species; the elytra are not margined at the base,

# Triplax thoracica.

Triplax thoracica, Say, J. Phil. (1) IV. 89. ...., Lec. J. Phil. (2) 1. 71. , Crotch, Tr. Am. Ent. Soc. 1873, 357. - melanoptera, Lac. Erot. 215. Lake Superior, Hudson's Bay, Illinois, Georgia, Texas, etc.

### Triplax lepida.

Ischyrus lepidus, Fald. Faun. Transc. II. 395 (1835). Triplax lepida, Bed. Abeille, v. 33.

Sweden, France, Armenia.

Very nearly allied to T. rufipes, but readily distinguished by the elytra being immarginate at the base, the red club of the antennæ and their 3rd joint scarcely perceptibly longer than the 4th.

### Triplax rufipes.

Tritoma	rufipes,	Fab.	Reise n.	Norw.	63	(177	9).
Triplax	<del></del> ,	Lac.	Erot. 216	3.		`	•
	<del></del> ,	Bed.	Abeille, v	. 34.			
	<del></del> ,	Crot	ch, Enton	ı. v. 7.			
	elevata,	Lac.	Erot. 217	7.			

Finland, Sweden, France, Germany, Austria, Italy, Sicily. Distinct from T. lepida by the antennæ with piceous club

and elongate 3rd joint; the maxillary palpi are extremely dilated.

### Triplax japonica.\*

Triplax japonica, Crotch, Ent. Mo. Mag. 1x. 189. Japan (Lewis).

### Triplax collaris.

Silpha collaris, Schall. Act. Hall. 1, 256 (1783). Triplax - , Bed. Abeille, v. 36. — capistrata, Lac. Erot. 217.

France, Germany, Austria, Dalmatia. At once recognised by its black head.

# Triplax sibirica, sp. n.

Ovata, subdepressa, nigra, antennis pedibus thoraceque ferrugineis, hoc antice posticeque nigro, valde transverso, sat crebre punctulato; scutello magno, nigro, fere lævi; elytris basi denticulato-marginatis, subtiliter punctato-striatis, interstitiis parce punctatis, circa scutellum confuse punctatis. L. 1\frac{1}{2} lin,

L. Baikal (Maack).

The depressed ovate form conjoined with the black head will at once distinguish it.

# Triplax flavicollis.

Triplax flavicollis, Lac. Erot. 218.

---- , Lec. J. Phil. (2) I. 71.—Proc. Phil. VII. 162.

Var. — , Crotch, Tr. Am. Ent. Soc. 1873, 358.

Pennsylvania, New York, Washington, Illinois, etc.

### Triplax Goudoti.

Triplax Goudoti, Lac. Erot. 205. Madagascar.

# Triplax omogera.

Triplax omogera, Lac. Erot. 206. Madagascar.

### Triplax pauxilla.

Triplax pauxilla, Lac. Erot. 207.

Madagascar.

Under-side as in T. omogera. Mentum quadrangular.

# Triplax hæmastoma.

Triplax hamastoma, Lac. Erot. 208.

Madagascar.

Mentum quadrate, broadest in front and acuminate in the middle; ventral process acuminate, no coxal line; metasternum canaliculate; mesosternum depressed; prosternum with the process narrow, parallel margined, deflexed.

# Triplax cruentipennis.\*

Triplax cruentipennis, Lac. Erot. 205.

Brazil.

Intermediate coxal line visible, metasternum sparingly punctate.

### Triplax indica, sp. n.

Oblonga, fulva, antennis (basi excepto) pectore elytrisque nigris; capite fortiter punctato, vertice læviore, thorace subtransverso, lateribus rotundatis, basi bisinuato, fortius parce punctato; elytris 8—9 punctato-striatis, interstitiis parce sed fortiter punctatis; abdomine metasternoque fortiter punctatis. L. 2 lin.

India.

Antennæ elongate, 3rd joint long, club lax.

### Triplax apicata, sp. n.

Oblonga, parallela, nitida, læte rufa, clypeo, antennis, pedibus, elytrisque dimidio apicali nigris; capite thoraceque parce punctatis, elytris punctato-striatis, interstitiis parce punctatis; abdomine metasterno episternisque sat fortiter punctatis. L. 3—3\frac{1}{3} lin.

India, Nepaul. I have seen specimens labelled "Natal," but

doubtless erroneously.

The thorax is margined at the base, the prosternum not keeled or raised before the coxe, the process finely margined and arcuate; the tibice are slightly dilated and setose; the maxillary palpi dilated, last joint very short and broad; antennæ rather short, club 3-jointed, 3rd joint scarcely longer than 2nd.

# Triplax coccinea.\*

? Ischyrus flavus, Mots. Et. Ent. 1866, 116.

Oblonga, convexa, læte rufa; capite thoraceque parce punctatis, abdomine metasterno episternisque fortiter punctatis. L. 3 lin.

India.

Thorax margined at the base; head bi-impressed; antennae elongate, 3rd joint conspicuously longer than the 2nd, club 3-jointed, lax.

### Triplax (?) sanguinea, sp. n.

T. coccinee valde affinis, at minor, antennis brevioribus, clava articulis sub-transversis, elytrorumque sculptura fortiori. L.  $2\frac{1}{2}$  lin.

India.

Species dubiæ.

### Triplax nigripes.\*

Ischyrus nigripes, Mots. Et. Ent. 1858, 116. Birma.

# Triplax unifasciata.\*

Triplax unifasciata, Mots. Et. Ent. 1858, 115. India.

# Triplax quadrimaculata.\*

Triplax 4-maculata, Mots. Et. Ent. 1858, 115. India.

# Triplax cyanipennis.\*

Triplax cyanipennis, Mots. Et. Ent. 1858, 114. India.

# Triplax lugubris.\*

Triplax lugubris, Mots. Et. Ent. 1858, 114. Ceylon.

# Triplax nigripennis.\*

Triplax nigripennis, Mots. Et. Ent. 1858, 114.

### Triplax Motschulskii.\*

7Triplax melanocephala, Mots. Et. Ent. 1859, 107 (nec Latr.). Ceylon.

[Triplax Menetriesi, Fald. Faun. Transc. 11. 396, cannot belong to this genus, nor probably to the family.]

### Tritomidea.

Mots. Et. Ent. 1859, 104 (typ. translucida, Mots.).

#### Tritomidea translucida.\*

Tritomidea translucida, Mots. Et. Ent. 1859, 106. India.

#### Tritomidea basalis.\*

Tritomidea basalis, Mots. Et. Ent. 1859, 106. Ceylon, India.

### Tritomidea oblonga.\*

Tritomidea oblonga, Mots. Et. Ent. 1859, 107. India.

# Tritomidea (?) chrysospila, sp. n.

Nigra, subhemisphærica, palpis abdomineque subtus ferrugineis; elytris singulo maculis 2 læte fulvis, 1 basali, 1 subapicali. L. 2 lin.

Singapore (Wallace).

Closely resembling T. nigrocruciata but more strongly punctate.

### Tritomidea (?) nigrocruciata, sp. n.

Hemisphærica, rufa, thorace elytrorumque signaturis nigris; capite vage punctato; thorace parcius punctato, transverso, antice valde angustato, basi utrinque oblique truncato, basi tenuissime vix marginato; scutello lævi; elytris fortius punctatis, nigris, singulo maculis 2 magnis (1 basali, 1 infra medium) apiceque rufis; abdomine crebrius punctulato, segmentis 1—2 æqualibus, 3 brevissimo, processu ventrali lato, truncato, linea coxali distincta; metasterno breviore, canaliculato, crebrius punctato, lateribus sublevibus; mesosterno latissimo, transverso; prosterno antice elevato-producto, processu lato, infra coxas vix producto leviter emarginato; epipleuris concavis; capite subtus convexo, impunctato. Tarsis brevioribus: capite convexo æquali, oculis parvis; palpis max. securiformibus. L. 13/2 lin.

Sarawak (Wallace).

Very near Tritomidea, Mots., but the structure of the palpi and antennæ, both in this and the preceding species, does not accord with the characters given by Motschulsky.

# Spondotriplax.

g. n. (typ. endomychoides, Crotch).

Head broad, eyes finely granulated, antennæ with the 3rd joint elongate, 9th dilated, 11th larger than the others, maxillary palpi with the last joint dilated into a long narrow crescent (as in some Mycotreti), mentum large triangular, head not impressed beneath.

Prosternum very short, the coxal process elevated, margined, triangular (reaching the anterior margin), slightly emarginate behind; mesosternum short, semicircular, margined in front (the

remainder depressed for the prosternum); metasternum broad, coxal line continuous from the intermediate (round the outside) to the posterior coxe.

Abdomen with the coxal line almost reaching the margin, ven-

tral process truncate, 3rd segment short.

Tarsi short, last joint about equal to the others.

# Spondotriplax endomychoides, sp. n.

Breviter ovata, haud convexa, supra carminea, subtus testacea, antennis clava nigra; capite punctato, sutura frontali translucida, semicirculari; thorace transverso, macula magna nigra utrinque, angulis anticis acutis, posticis rotundatis, basi haud marginato, vix lobato; scutello parvo punctulato; elytris fortius punctato-striatis (striis 8), interstitiis evidentius punctulatis, macula nigra prope marginem infra humerum. L.  $2\frac{1}{2}$  lin.

Sarawak (Wallace).

Abdomen hardly punctulate, metasternum coarsely but very sparingly punctate.

### Spondotriplax cyanecula, sp. n.

Breviter ovata, sub-depressa, ochracea, antennarum clava thoraceque (angulis anticis exceptis) nigris, elytris nitidis cyaneis; capite punctato, thorace parce subtiliter punctato, antice paulo angustiore, angulis anticis acutis, ochraceis, basi utrinque suboblique truncato; scutello obsolete punctulato; elytris basi marginato, punctato-striatis (striis 7), interstitiis crebre punctulatis. L. 2 lin.

Salwatty (Wallace).

The papi are less dilated, the abdomen is obsoletely punctulate, the coxal line curved round to follow the coxa, the metepisterna deeply punctate.

### Spondotriplax ceramensis, sp. n.

Subovata, depressa, ochracea, pectore abdomineque picea, cyaneo micantibus, elytris cyaneis; thorace parce punctulato, ochraceo, vix cyanescente, basi macula difformi rufo-picea, punctis majoribus paucis in basi ipso impressis; scutello lævi; elytris, interne obsolete externe profunde, punctato-striatis, interstitiis crebre subtiliter punctulatis. L. 1½ lin.

Ceram (Wallace).

Beneath hardly punctulate, coxal line obsolete.

### Mycophthorus.

Lac. Erot. 193 (typ. melanocerus, Lac.).

Antennæ with a compressed 3-jointed club as in Triplax. Mentum as in Mycotretus.

# Mycophthorus melanocerus.

Mycophthorus melanocerus, Lac. Erot. 193. Cavenne.

Under-side coarsely punctate.

# Mycophthorus pauperculus.

Mycophthorus pauperculus, Lac. Erot. 194.

Columbia, Ega, St Paulo (Bates).

Thorax nearly smooth, base sinuate, sinuation with several deeply impressed punctures; elytra with interstices hardly punctulate; under-side smooth.

### Lybas.

Dej. Cat. 453 (typ. normalis, Lac.).

The characters of this genus are difficult to define; the first section with produced lobe to the thorax seems sufficiently distinct, especially as L. lucidus is not intermediate but is nearly allied to Mycotretus; the second section has a double punctuation on the thorax, but some of the species are uncertain,

A. Thorax produced behind, covering the scutellum in part (Hemiaspis, Lac.).

# Lybas bicolor.

Brachymerus bicolor, Guér. R. Z. 1841, 153. \_\_\_\_, Lac. Erot. 230.

Bolivia (Guérin).

The type (which is now before me) is pretty clearly punctatestriate, the elytra with the apex narrowly red, the head deeply impressed in front, the sides of the metasternum punctate, both coxal lines visible. The specimens from Venezuela accord better with Lacordaire's description, having no visible strize or punctures and the elytra entirely black.

Bates found specimens at S. Paulo and Ega, of which some have the elytra entirely black and the head less impressed, the others having the external margin and apex of the elytra red; Buckley sent 2 specimens from Ecuador, exactly alike in sculpture, one having the elytra black, the other red at the apex; hence for the present I have left all these forms under one specific name.

### Lybas ferrugineus.

Erotylus ferrugineus, Oliv. Ent. v. 482, T. III. f. 34. \_\_\_\_\_ , Lac. Erot. 230. Lybas

Cayenne.

Very like a pale form of L. bicolor, but with a much more strongly punctured abdomen.

### Lybas granatus.

Lybas granatus, Lac. Erot. 231.

Mexico.

Antennæ with the 8th joint scarcely dilated; under-side shining, sparingly punctate.

### Lybas rufinus.

Lybas rufinus, Lac. Erot. 232.

Cayenne.

Distinct by the concolorous legs and deeply punctured abdomen.

#### B. Scutellum uncovered.

### Lybas calidus.

Lybas calidus, Lac. Erot. 233.

Columbia, Ega, St Paulo (Bates).

Bates' specimens agree exactly with the description, except that there is only one black dot on each side the discoidal mark on the thorax. Under-side rather deeply punctate; thorax with a double punctuation, the larger points evident.

### Lybas chlamydophorus.

Lybas chlamydophorus, Lac. Erot. 234,

Columbia.

Very near L. calidus, but the fine punctures on the thorax are scarcely discernible.

### Lybas faba.

Lybas faba, Lac. Erot. 234.

Columbia.

Thorax very sparingly punctate, the large punctures almost obsolete.

### Lybas normalis.

Lybas normalis, Lac. Erot. 235.

Cavenne, Ega (Bates).

Thorax evidently and thickly punctate, punctuation double. In the Amazon specimens the large elytral spot is not gradually paler behind, but abruptly black.

# Lybas thoracicus.

Erotylus thoracicus, Oliv. Ent. v. 486, T. III. f. 41.

Lybas \_\_\_\_\_ , Lac. Erot. 236.

Cayenne, Para (Bates).

Thorax evidently punctate.

### Lybas axillaris.

Lybas axillaris, Lac. Erot. 236.

Cayenne.

Thorax sparsely punctate.

# Lybas mycetophilus.\*

Lybas mycetophilus, Lac. Erot. 237.

Cayenne (Turin).

Very unlike the other species; thorax deeply and thickly punctate, under-side deeply punctate, metasternum very coarsely punctate, even the sides of the prosternum punctate.

### Lybas seminulus.

Lybas seminulus, Lac. Erot. 237.

Cayenne.

Prosternum in front deeply punctate.

### Lybas pulicarius.

Lybas pulicarius, Lac. Erot. 238.

Cavenne.

Thorax very evidently and rather closely punctate; sides of metasternum with 4—5 deep punctures, prosternum impunctate.

# Lybas (?) carbunculus.

Lybas carbunculus, Lac. Erot. 238.

Mexico.

Thorax with a fine uniform punctuation.

### Lybas (?) corallinus.

Lybas corallinus, Lac. Erot. 239.

Cavenne,

Thorax with the basal fovea deeply punctate; under-side smooth, no posterior coxal line, intermediate line deep, extending nearly to the margin.

### Mycolybas.

g. n. (typ. lucidus, Lac.).

Differs from *Mycotretus* by the convex surface, no coxal lines, thorax not margined at the base and the basal lobe truncate before the scutellum.

Differs from Lybas by the absence of coxal lines, the truncate lobe of the thorax, the form of the mentum, the dilated tibiæ, etc.

### Mycolybas lucidus.

Lybas lucidus, Lac. Erot. 232.

Brazil.

This species is very distinct, having no coxal lines, and the tibiæ being suddenly angularly dilated at the apex; the mentum appears to be almost as in *Mycotretus*.

# Mycolybas Egæ, sp. n.

 $M.\ lucido$  proximus, sed opacus, pallide coccineus, elytris margine tenui apiceque flavis; capite antice fortius punctato, sutura clypeali distincta; thorace subtilius punctato; elytris minus visibiliter striatis, intersititis vix punctatis, corpore subtus punctulato, meta-epipleuris flavis. L.  $4\frac{1}{2}$  lin. Ega (Bates).

Antennæ with a 3-jointed club.

### Mycolybas cruentatus.

Lybas cruentatus, Kirsch, B. E. Z. IX. 97 (1865).

M. lucido affinis, sed thorace fortius punctato distinctus.

Bogota (Kirsch), N. Granada.

A specimen from N. Granada differs from Kirsch's type in having the thorax more like *M. lucidus*, and the legs black: possibly all three form one species.

# Mycolybas melanocorynus.

Lybas melanocorynus, Lac. Erot. 233. Brazil.

## Mycolybas (?) sanguinosus.\*

Ischyrus sanguinosus, Mots. Et. Ent. 1858, 116. Columbia.

# Mycolybas (?) coccineipennis.\*

Ischyrus coccineipennis, Mots. Et. Ent. 1858, 117. Central America.

### Palæolybas.

g. n. (typ. andreæ, Crotch).

This genus is apparently the representative of the S. American Lybas, which it resembles in its convexity and polish; the most marked character is the triangular dilatation of the tibia, which extends to their whole length. The thorax is not margined, the prosternum is margined on either side but not keeled in front,

the process is broad and emarginate; antennæ very short, third joint elongate equal to the three following. Eyes finely granulated, first ventral segment with a raised line as in Coccinella, following the movement of the coxa.

# Palæolybas andreæ,\* sp. n.

Breviter ovatus, valde convexus, rufus; capite thoraceque crebre punctatus, hoc transverso, lateribus rotundatis, angulis posticis obtusis, lateribus marginatis, basi in medio lobato; elytris tenue punctato-striatis, interstitiis sparse punctulatis, lateribus marginatis, callo humerali prominente, fascia basali (externe latiore) punctisque 2 transverse positis pone medium nigris; corpore subtus punctato (prosterno excepto), elytrorum epipleuris concavis. L. 4 lin.

Old Calabar (Murray).

### Palæolybas humeralis,\* sp. n.

P. andrew simillimus, sed minor, totus rufus (puncto humerali nigro), minus crebre punctatus, tibiisque minus fortiter dilatatis. L. 3 lin.

Old Calabar (Murray).

### Palæolybas nigripennis, sp. n.

P. andreæ proximus, sed paulo minor, elytris totis nigris, thorace convexiore, nitidiore, parcius punctato. L. 31 lin.

My specimen is marked "India," but there is no doubt it is a W. African insect and not impossibly identical with the 2 previous species.

### Palæolybas coccinelloides, sp. n.

Subhemisphericus, læte sanguineo-rufus, capite thoraceque crebre punctatis, hoc convexo lateribus marginatis subrectis; elytris punctato-striatis interstitiis subtiliter punctulatis, nigris, macula sat magna discoidali rufa (paulo ante medium posita). L. 21 lin.

Old Calabar (Murray), Natal.

### Xestus.

Woll. Cat. Can. Col. 420 (typ. throscoides, Woll.).

### Xestus throscoides.\*

Xestus throscoides, Woll. Cat. Can. Col. 421. , Bedel, Abeille, v. 43.

Teneriffe

### Xestus fungicola.

Xestus fungicola, Woll. Col. Atlant. 385. Gomera.

#### Neoxestus.

g. n. (typ. chilensis, Crotch).

Near Xestus by the coarsely granulated eyes, antennæ with a 3-jointed club, etc.; mentum trapezoidal, depressed, acuminate in front; the base of the elytra with a raised denticulate margin, scutellum very transverse.

It seems to me impossible to range this with *Ischyrus*; it has at first sight the appearance of *Xestus*.

### Neoxestus chilensis, sp. n.

Niger, subtiliter alutaceus, subopacus, antennis pedibus anoque ferrugineo; capite thoraceque parce evidentius punctatis, illo labro rufo; hoe subtransverso, lateribus paulo rotundatis, cum basi tenuiter marginatis, puncto utrinque discoidali impresso, basi utrinque sinuato, fovea grosse punctata impressa; scutello valde transverso, punctulato; elytris subtiliter seriato punctatis, interstitiis subtilissime punctulatis, lateribus sat fortiter reflexis, macula humerali, subapicali parva, apicalique ferrugineis. L. 2½ lin.

Chili.

Abdomen beneath pubescent, sparingly, last sequent thickly punctured, coxal line abbreviated, fine; metasternum punctulate, mesosternum quadrate depressed for the prosternum, with about a dozen deep punctures; prosternum nearly smooth, process subtriangular, apex emarginate.

#### Tribe 3. Encaustini.

### Encaustes.

(Dej.) Lac. Erot. 33 (typ. verticalis, MacL.).

Recognizable by the trapezoidal thorax, sides straight, base slightly bisinuate, antennæ with the 3rd joint elongate, club 3-jointed, abrupt, prosternum but little produced between the coxæ, margined, obtriangular.

Elytra generally sparsely pilose on the posterior fifth. Thorax with the base slightly foveolate on each side.

#### Encaustes verticalis.

Engis verticalis, MacL. Ann. Jav. 41.

Encaustes —, Lac. Erot. 35.

Java.

A specimen labelled "Bengal" is larger and with the apical sixth of the elytra entirely black; it is, however, scarcely specifically distinct.

# Encaustes malayana.

Pselaphacus malayanus, Guér. R. Z. 1841, 157.

Encaustes malayana, Lac. Erot. 36.

Java, Sumatra (Lacordaire), Tringano, Malacca (Wallace).

The thorax is partially margined behind.

### Encaustes opaca, sp. n.

Nigra, opaca, punctata; capite lævi, fronte profunde emarginato, sulcis ocularibus profundis; thorace antice latiore, augulis anticis productis rotundatis, lateribus reflexis, basi late rotundato, lævi, macula utrinque difformi fulvå; elytris subsulcatis, punctatis, unicoloribus. L. 11 lin.

Ligor (Wallace).

### Encaustes cruenta.

Engis cruenta, MacL. Ann. Jav. 42.

Encaustes — , Lac. Erot. 38.

Cambodia, Java, Penang, N. Borneo (Wallace).

The base of the thorax margined at the angles only. The specimens without a scutellar spot are males, and have the anterior femora curved.

### Encaustes javanica.

Engis javanica, Lap. Hist. Nat. 11. 15. Encaustes — , Lac. Erot. 40. Java.

### Encaustes dispar.\*

Encaustes dispar, Lac. Erot. 39.

Java (Buquet).

I have not seen this species.

### Encaustes marginalis, sp. n.

Nigro-picea, nitida, capite antice sublævi, vertice punctato, fronte clypeo maculisque duabus in vertice rubris; thorace subquadrato, basi plus minusve marginato, sparse subtiliter punc-

tulato, maculis duabus difformibus fulvis (ut in E. cruenta); elytris tenuiter striato-punctatis, interstitiis obsolete punctulatis, vel lævibus, basi fulvo-marginato, vittis duabus fulvis valde abbreviatis (1 in callo, 1 sub-suturali) vittaque laterali fulva angusta ad apicem dilatata, L. 13-14 lin.

Penang, N. Borneo.

Eyes more approximated than in the other species, the transverse impression more distinct, front deeply emarginate.

### Encaustes humeralis, sp. n.

Nigra, nitidissima, capite parce punctato; thorace brevi, antice angustiore, lateribus rectis, angulis anticis haud productis, basi late angulato, parcissime obsolete punctato, macula utrinque difformi rubro-fulva; elytris seriatim punctatis, interstitiis lævibus, macula magna humerali, alteraque subapicali fulvis. L. 111-12lin.

New Guinea (Wallace).

# Encaustes Wallacii, sp. n.

Nigra, magis angustata, nitida, capite sparse punctato, oculis magis approximatis; thorace sub-quadrato, angulis anticis minus prominulis, basi leviter sinuato, în medio producto, parcissime obsoleteque punctulatis, maculis 4 in disco (lateralibus connectis) fulvis; elytris punctato-striatis, interstitiis parcissime punctatis, singulo humero, macula quadrata ante medium (cum humero conjuncto) maculaque subtransversa ante apicem fulvis. L. 9 lin.

Tonda (Wallace).

### Encaustes cinctipes.\*

Encaustes cinctipes, Lac. Erot. 41. Manilla.

# Encaustes gigantea.\*

Encaustes gigantea, Boh. Eug. Resa. Ins. 211. Malacca.

### Micrencaustes.

g. n. (typ. lunulata, MacL.).

This differs from Encaustes proper by the structure of the prosternum which is compressed, elevated and produced into a point under the mentum.

### Micrencaustes lunulata.

Dacne lunulata, MacL. Ann. Jav. 42. Encaustes — , Lac. Erot. 42.

Encaustes sinuata, Lac. Erot. 41.

Java, Penang, Sarawak, N. Borneo (Wallace).

E. sinuata, Lac., differs only in the markings of the thorax, which are exceedingly variable.

#### Micrencaustes carnifex.

Encaustes carnifex, Lac. Erot. 37.

Java, Sumatra (Wallace).

Thorax short, base with a punctured fovea on each side.

#### Micrencaustes liturata.

Dacne liturata, MacL. Ann. Jav. 42. Encaustes — , Lac. Erot. 43. Java.

#### Tribe 4. EROTYLINI.

#### Aulacochilus.

Chev. Dej. Cat. Ed. 3 (1837), 453. Lac. Erot. 245 (scrip. Aulacocheilus). (typ. — ?)

# Aulacochilus javanus.

Aulacochilus javanus, Guér. R. Z. 1841, 155.
\_\_\_\_\_\_\_\_, Lac. Erot. 246.
\_\_\_\_\_\_\_, Bedel, An. S. E. Fr. 1871, 274.
Java.

### Aulacochilus quadripustulatus.

Erotylus 4-pustulatus, F. Syst. El. 11. 6.

Aulacochilus — , Lac. Erot. 247.
— , Bedel, An. S. E. Fr. 1871, 274.

Java, Sumatra, Malacca.

### Aulacochilus Doriæ.

Aulacochilus Doriæ, Bedel, An. S. E. Fr. 1871, 275. Borneo,

# Aulacochilus quadrisignatus.

 Aulacochilus 4-signatus, Guér. R. Z. 1841, 156.

 — , Luc. Erot. 248.

 — , Bedel, An. S. E. Fr. 1871, 275.

 Philippines, Manilla.

#### Aulacochilus maximus.\*

Aulacochilus maximus, Bedel, An. S. E. Fr. 1871, 276. India.

### Aulacochilus propinguus.

### Aulacochilus tetraphacus.

Aulacochilus tetraphacus, Bedel, An. S. E. Fr. 1871, 278. Malacca.

#### Aulacochilus luniferus.

#### Aulacochilus birmanicus.

Aulacochilus birmanicus, Bedel, An. S. E. Fr. 1871, 280. Birma, Rangoon.

#### Aulacochilus micans.\*

#### Aulacochilus sericeus.

### Aulacochilus capensis.

### Aulacochilus Chevrolati.

algerinus, Bedel, Abeille, v. 47 (1868).

Algeria, Constantine.

#### Aulacochilus violaceus.

Triplax violacea, Germ. Ins. Spec. Nov. 616 (1824). Aulacochilus violaceus, Lac. Erot. 251.

\_\_\_\_\_\_\_\_, Bedel, Abeille, v. 45.—An. S. E. Fr.

Austria, Sicily.

#### Aulacochilus mediocæruleus.

Aulacochilus medioceruleus, Bedel, An. S. E. Fr. 1871, 285. Philippines, Mindanas.

# Aulacochilus japonicus.\*

Aulacochilus japonicus, Crotch, Ent. Mo. Mag. IX. 189. Japan.

### Aulacochilus (?) rhomboides.\*

Triplax rhomboides, Montrouz. Ann. S. Agr. Lyon. (2) vii. 74 (1855).

Island of Woodlark.

This will probably form the type of a new genus.

### Thonius.

Lac. Erot. 252 (typ. pavoninus, Lac.).

Distinct from Cyclomorphus by the elongate thorax, and from all others of this group by the coarsely granulated eyes.

No coxal line, meso- and meta-sternum very short; thorax not

margined; ventral process strongly margined.

& with an impressed point in the middle of the first ventral segment.

### Thonius pavoninus.

Thonius pavoninus, Lac. Erot. 253.

Columbia,

The female differs but little from the male; Lacordaire's description of the female evidently applies to a distinct species.

#### Thonius maculatus.

Thonius maculatus, Guér. Icon. R. A. Ins. 308 (1846). Columbia

# Thonius substriatus, sp. n.

T. pavonino simillimus, sed latior, thorace breviore; elytris basi striato-punctatis, fascia basali sub-recta, maculis duabus apicalibus fere confluentibus, ferrugineo-cinctis. L. 5½ lin.

Columbia.

# Thonius Buckleyi, sp. n.

T. pavonino similis, sed postice valde dilatatus et convexus, thorace breviore postice tenue marginati, unicolore, elytris ut in T. maculato signatis, macula interna subapicali minuta, totis ferrugineo-cinetis. L. 6—7 lin.

Ecuador (Buckley).

The prosternum is compressed, largely elevated and dilated.

### Thonius nebrioides, sp. n.

Ovatus, rufo-brunneus, nigro-signatus, capite lævi, nigro-bisignato; thorace quadrato, angulis anticis acutis, crasse marginatis, lateribus fortiter rotundatis, basi elytris multo angustiore, disco lævi nigro-signato; elytris lævibus, basi punctis perpaucis subseriatim impressis, fascia basali interrupta, subapicalique obliqua nigris ferrugineo-cinctis. L. 5½ lin.

Columbia.

Very distinct by the dilated thorax; the markings are similar to those of T. pavoninus.

# Thonius flexuososignatus, sp. n.

Ovatus, elytris basi constrictis, fulvus, capite oculis fortius marginatis; thorace angusto vix transverso, antice leviter emarginato, lateribus rotundatis, ante angulos posticos rectos, sinuatis, basi truncato, lævi, tenue nigro-limbato, maculis 2 discoidalibus (cum margine antico connectis), 2 basalibus remotis, nigris; elytris basi constrictis, postice acuminatis, nigro-limbatis, nigro-signatis, signatura ante medium ad sinistrum elytrum littera S simulante, fasciaque flexuosa apicem versus. L. 5 lin.

N. Granada,

The first 2 ventral segments are black in the middle and with black spots at the sides, the epipleuræ bordered with black.

# Thonius flavipennis.

Thonius flavipennis, Guér. Icon. R. A. Ins. 309. Columbia.

### Thonius (?) unicolor.

Thonius unicolor, Guér. Icon. R. A. Ins. 309. Columbia.

### Euphanistes.

Lac. Erot. 255 (typ. hydrophiloides, Lac.).

A very anomalous insect; smooth polished, eyes rather coarsely granulated, thorax broadest at the base, which is not margined; elytra with a strong, denticulate, basal margin; metasternum very short, coxal line complete, apex emarginate for the mesosternum; prosternum with a raised triangle in the middle, pointed in front and truncate behind; abdomen short; no coxal line; epipleuræ very broad at the base and flat.

### Euphanistes hydrophiloides.

Euphanistes hydrophiloides, Lac. Erot. 256. N. Granada.

### Cyclomorphus.

(Hope) Lac. Erot. 258 (typ. globosus, Guér.).

Allied on the one hand by its eyes and polished appearance to *Thonius*, but gradually fading off into *Brachysphænus*. Some of the latter genus (e.g. *B. pertinax*) evidently belong here. The intermediate coxal line is present, and nearly reaches the margin.

# Cyclomorphus Beauvoisii.

Cyclomorphus Beauvoisii, Lac. Erot. 259.

Columbia.

Very close to *Thonius* in markings and sculpture, but with a short thorax, and coxal line developed.

### Cyclomorphus Mæander.\*

Cyclomorphus Mæander, Lac. Erot. 260.

Columbia (Turin).

Deeply punctate-striate, intermediate coxal line well marked, posterior absent.

### Cyclomorphus tumidus.\*

Cyclomorphus tumidus, Lac. Erot. 261. Columbia.

### Cyclomorphus læviusculus, sp. n.\*

Ovatus, sat convexus, rufo-brunneus, thorace vix punctulato, convexo, lateribus rotundatis; elytris lævibus, fascia dentata utrinque

abbreviata nigro-picea prope basin; corpore subtus punctulato. L.  $3\frac{1}{6}-4$  lin.

Venezuela (Sallé).

Allied to C. Beauvoisii but smaller; the intermediate coxal lines united forming a deep groove across the front of the metasternum, tarsi short.

### Cyclomorphus alienus, sp. n.

Ovatus, convexus, rufo-brunneus, elytris fulvis, antennis nigris, thorace vix punctulato, antice posticeque nigro-limbato, lateribus rotundatis; elytris lævibus, macula nigra pone medium marginem versus, altera parva obsoleta discoidali ante medium. L.  $4\frac{1}{4}$  lin.

N. Granada.

The coxal lines are here both absent.

### Cyclomorphus globosus.

Cyclomorphus globosus, Guér. R. Z. 1841, 120.

Columbia.

The posterior coxal line is present in this species; and the metasternal line is produced almost across the apex of the metasternum, forming a deep furrow on each side.

### Cyclomorphus Bonplandi.

Cyclomorphus Bonplandi, Lac. Erot. 263.

Columbia.

The spots are much the same as in C. globosus. The coxal lines are distinct.

### Cyclomorphus inflatus.

Cyclomorphus inflatus, Lac. Erot. 262. Columbia.

Allied to C. globosus, coxal lines distinct.

### Cyclomorphus Humboldti.

Cyclomorphus Humboldti, Lac. Erot. 263. infaustus, Lac. Erot. 265.

Columbia.

Posterior coxal lines obsolete. C. infaustus is founded on a badly preserved specimen, in which the pigment has run into irregular lines.

# Cyclomorphus extricatus, sp. n.

C. Humboldti persimilis, sed convexior, nitidior, maculis elytrorum nigris majoribus ferrugineo-cinctis.

L. 41 lin. Bogotá (Janson).

I have seen several specimens, all exactly alike.

# Cyclomorphus pertinax.

Brachysomus pertinax, Lac. Erot. 336.

Columbi

I cannot understand why this species was referred to Brachysomus (Sternolobus); it is in every respect a Cyclomorphus.

### Cyclomorphus sub-ocellatus, sp. n.

Ovatus, rufo-castaneus, antennis nigris; thorace brevi obsolete punctulato, basi punctis majoribus impressis; elytris punctatostriatis, in basi figura numeri 8 ferruginea nigro-pupillata, maculaque duplicata apicem versus nigra, ferrugineo-cincta. L. 3 lin.

Columbia.

Intermediate coxal line present; this is less convex than the other species.

### Cyclomorphus quadriplagiatus.

Cyclomorphus 4-plagiatus, Lac. Erot. 264.

Corumbia

Intermediate coxal line visible.

### Cyclomorphus bis-bimaculatus.

Cyclomorphus bis-bimaculatus, Lac. Erot. 265.

Both coxal lines visible; this species has an extreme resemblance to Brachysphænus.

### Cyclomorphus iphicloides, sp. n.

Subovatus, paulo elongatus, fulvus, capite vertice nigro-punctato, oculis late marginatis; thorace plano, antice angustiore, lateribus sub-rotundatis, basi utrinque leviter sinuato, punctis majoribus impressis, punctulato, antice punctis 2, disco punctis 4 nigris; scutello nigro; elytris pallide-olivaceis, punctato-striatis (striis 7) tenue fulvo-marginatis; singulo maculis 2 nigris pallide cinctis, 1 suturam versus ante medium, 1 majore prope marginem infra medium; femoribus apice tibiis tarsisque nigris. L. 4 lin.

Ecuador (Buckley).

Both coxal lines visible.

# Cyclomorphus apicicornis, sp. n.

Subhemisphæricus, nitidus, flavo-ochraceus, piceo-variegatus; antennis nigris, articulo ultimo testaceo; capite fronte lateribus crasse, oculis angustissime marginatis, leviter punctulato; thorace transverso, antice angustiore, lateribus fortiter reflexis, lævi, antice posticeque nigro, disco fusco; scutello nigro; elytris lævibus, obsoletissime punctato-striatis; macula humerali fasciis 2 communibus fuscis, 1 ante medium, antice angulata, 1 subapicali, obliqua, minus distincta; inter primam et basin, et inter primam et secundam, punctis 2 nigris oblique sitis. L. 23 lin.

N. Granada.

Intermediate coxal line fine, nearly reaching the margin; prosternum not carinate in front.

### Cyclomorphus æneomaculatus, sp. n.

C. apicicorni affinis, sed capite fortiter punctato, thorace longiore, evidenter punctulato, disco vitta lata æneo-nigra; scutello rufo, elytris punctato-striatis, interstitiis parce punctulatis, fulvis, puncto humerali, fascia ante medium utrinque dentata, obliqua, sat lata, punctis 2 pone medium æneo-nigris; ante apicem vitta obliqua fusca. L. 21 lin.

N. Granada.

Metasternum deeply punctate.

# Cyclomorphus coccinellinus, sp. n.

C. eneomaculate affinis, sed paulo minor, minus convexus, thorace disco fusco-bilineato; elytris confuse punctato-striatis, singulo puncto medio basali, 4 valde oblique sitis (externo parvo, 2º majore), 1 prope marginem ultra medium, nigris; apice fusco. L. 21 lin.

N. Granada.

### Cyclomorphus gibbosus, sp. n.

Subovatus, elytris fortiter convexis, fere gibbosis, capite thoraceque deflexis; rufo-piceus; fronte late, oculis vix marginatis, fortiter granulatis; thorace lævi, lateribus rotundatis, antice semicirculariter emarginato; elytris lævibus, obsolete punctato-striatis, annulo fulvo humerali, alteroque postice incompleto apicem versus. L. 21-3 lin.

N. Granada.

The extremely convex form would seem to indicate a new genus; antennæ long, reaching beyond the thorax, metasternum and ventral segment very short, transverse, no coxal lines.

### Cyclomorphus chrysomelinus.

Mycotretus chrysomelinus, Lac. Erot. 191. N. Granada.

### Cyclomorphus bihamatus.\*

Brachysphænus bihamatus, Lac. Erot. 414. Columbia.

Sides of metasternum deeply punctate, intermediate coxal line visible.

### Cyclomorphus octopunctatus.\*

Cyclomorphus 8-punctatus, Er. Arch. f. Nat. XII. 179 (1847). Peru.

# Cyclomorphus variegatus.

Cyclomorphus variegatus, Kirsch, B. E. Z. 1x. 98 (1865). Bogota.

### Strongylosomus.

Chev. Dej. Cat. 451 (typ. unicolor, Oliv.).

[Coccimorphus, Hope, 1841; Lac. Erot. 266.]

It is difficult to define this genus, which resembles £githus but has a differently shaped thorax. The eyes are finely granulated and the antennæ very short.

A. Rostrum quadrate, frontal suture distinct, prosternum scarcely compressed, no coxal lines, eyes scarcely margined, 1st ventral segment short. *Coccimorphus*, Hope.

# Strongylosomus nigripes.

Coccimorphus nigripes, Lac. Erot. 268.

The epipleuræ of the elytra are deeply sulcate.

### Strongylosomus melanopus.

Coccimorphus melanopus, Lac. Erot. 269. Cayenne.

### Strongylosomus carmineus.

Coccimorphus carmineus, Lac. Erot. 269. Brazil.

Elytra rather coarsely punctate.

### Strongylosomus capitatus.

Coccimorphus capitatus, Lac. Erot. 270.
Brazil.

Distinct by its punctate-striate elytra; the striae are seven in number and then a submarginal stria after a space. The black head appears to me to result from false mending and not to be the real head of the insect.

### Strongylosomus rotundatus.

Coccimorphus rotundatus, Lac. Erot. 270. Cayenne.

### Strongylosomus Emys.

Coccimorphus Emys, Lac. Erot. 518.

Oaxaca, Mexico.

The frontal suture is less apparent, and the eyes distinctly margined.

# Strongylosomus frenatus.

Coccimorphus frenatus, Guér. R. Z. 1841, 22.

Columbia.

The front of the head is rather deeply concave.

# Strongylosomus peruvianus, sp. n.

Ovatus, testaceus, antennis, femoribus, apice, tibiis tarsisque nigris; capite postice nigro, sublævi; thorace subtilissime punctulato, undique anguste nigro-marginato, basi maculis 2 elongato-quadratis, remotis; scutello nigro; elytris flavis confertim punctato-striatis, lateribus confuse punctatis, interstitiis lævibus; margine suturaque angustissime nigro. L $3\frac{1}{2}$  lin.

Peru.

Near C. frenatus in colour, but very distinct by the smooth interstices.

# Strongylosomus coccinelloides.

Erotylus coccinelloides, Dup. Erot. 33, T. 111. f. 63. Coccimorphus ———, Lac. Erot. 272. Brazil. B. Rostrum cuneiform, short, forehead with two impressions in front; frontal suture visible, eyes not margined above. Strongy-losomus, Chevr.

### Strongylosomus unicolor.

Erotylus unicolor, Oliv. Ent. v. 481, T. III. f. 32.
—— brevicornis, Dup. Erot. 36, T. III. f. 68.
Coccimorphus unicolor, Lac. Erot. 272. 8.
Brazil, Cayenne.

# Strongylosomus rugosus.

Coccimorphus rugosus, Lac. Erot. 276. Cayenne.

# Strongylosomus dichrous.

Coccimorphus dichrous, Lac. Erot. 274.
Columbia, Bogota, Costa Rica, Guatemala.
Examples which I have before me from the two latter localities are inseparable from this species.

### Strongvlosomus foveicollis.\*

Coccimorphus foveicollis, Lac. Erot. 275.

Brazil.

The unique type seems to have been somewhat immature and malformed.

### Strongylosomus alutaceus.

Coccimorphus alutaceus, Er. Arch. f. Nat. XII. 179 (1847).

### Ægithus.

Fab. Syst. El. 11. 9 (typ. surinamensis, L.).

A. Elytra smooth: no coxal lines.

### Ægithus chalybeus.

Erotylus chalybeus, Dup. Erot. 33, T. III. f. 62. Ægithus ——, Lac. Erot. 279.

Brazil, Espiritu Santo.

Distinct by its pyramidal form, flattened in front. Epipleuræ of the thorax concave.

### Ægithus Walckenaeri.

Ægithus Walckenaeri, Lac. Erot. 280.

Brazil.

Resembling E. chalybeus but less pyramidal.

### Ægithus cinctipennis.

Erotylus cinctipennis, Dup. Erot. 33, T. III. f. 60. \_\_\_\_ , Lac. Erot. 280.

Brazil, Nicaragua (?).

Here the pyramidal form is entirely lost. Epipleuræ concave.

# Ægithus cyanipennis.

Ægithus cyanipennis, Guér. R. Z. 1841, 120.

, Lac. Erot. 279. \_\_\_\_\_ consularis, Guér. Verh. z. b. V. Wien, v. 610 (1855).

Santa Cruz de la Sierra, Bolivia.

Var. consularis. Elytris singulo plaga laterali obliqua rufa, magnitudine variante.

Amazons (Bates), Ecuador (Buckley).

This variety seems very distinct but I have seen all the passages. Guérin's character drawn from the scutellum is illusory. The epipleuræ are concave, the whole form cordate.

#### В. Elytra with numerous irregularly disposed punctures.

### Ægithus punctatissimus.

Erotylus punctatissimus, Fab. Syst. Ent. 123 (1775). , Herbst, Natursyst. VIII. 367, T. 137, f. 6.

, Dup. Erot. 33, T. 111. f. 61. , Lac. Erot. 281.

 $\angle Eaithus$ Surinam.

Thorax with a few punctures along the base, prosternum elevated convex, epipleuræ plane; no coxal lines.

### Ægithus separandus, sp. n.

Æ. punctatissimo persimilis, sed elytris colore læte luteo, punctis impressis paulo minoribus, magis numerosis, minus confluentibus distinctus videtur. L. 6-61 lin.

Ecuador (Buckley).

### Ægithus Burmeisteri.

Ægithus Burmeisteri, Lac. Erot. 281.

Bolivia, Amazons (Bates).

Differs from £. punctatissimus by the yellow epipleuræ of the elytra.

# Ægithus cribrosus.

Egithus cribrosus, Lac. Erot. 293.

Brazil, Ecuador (Buckley).

The prosternum is compressed in front; the coxal process broad and deeply foveolate; intermediate coxal line well marked, posterior absent.

C. Elytra gemellate punctate: no coxal lines.

# Ægithus suturella.

Ægithus suturella, Lac. Erot. 290. Columbia.

## Ægithus brunnipennis.

Ægithus brunnipennis, Lac, Erot, 285.

Brazil.

The intermediate coxal line is here totally absent, in which respect this species differs from the others with a similar coloration; it is very close to £. Lebasii but is a little less opaque, and larger.

### Ægithus Leachii.

Ægithus Leachii, Lac. Erot. 287.

Columbia.

Distinct by the evidently punctate interstices of the elytra.

### Ægithus maculicollis.

Erotylus maculicollis, Dup. Erot. 34, T. III. f. 64.

Ægithus \_\_\_\_\_, Lac. Erot. 288.

Brazil, Minas Geraes, Para.

### Ægithus varicollis.

Ægithus varicollis, Lac. Erot. 291.

Columbia.

Thorax much narrower than the elytra.

A specimen labelled "Guatemala" is precisely identical, except that the black on the thorax is less developed, neither of the three lines reaching the margin.

### Ægithus ornaticollis.\*

Ægithus ornaticollis, Lac. Erot. 292.

Columbia.

Very close to *E. varicollis*, but more oval, head with a pale spot, elytra more coarsely punctate-striate, interstices evidently punctate.

# Ægithus andreæ.

Ægithus andreæ, Lac. Erot. 282.

6-maculatus, Kirsch, B. E. Z. 1x. 99 (1865).

Columbia, Amazons (Bates), Demerara.

Very variable both in colour and punctuation, the basal fascia is sometimes divided, as in Kirsch's specimens.

D. Elytra impunctate: coxal lines visible.

### Ægithus uva.

Egithus uva, Lac. Erot. 290,

Columbia, Bogota (Janson).

Elytra entirely smooth, shining; prosternum compressed, subcarinate.

# Ægithus lineatus.

Ægithus lineatus, Guér. Icon. R. A. Ins. 308. Columbia.

# Ægithus truncatus, sp. n.

Hemisphericus, livido-fuscus, lævissimus, nitidissimus; capite fulvo, occipite nigro; thorace nigro, lateribus late pallide fuscis, postice ante scutellum producto, truncato; elytris lævibus; corpore subtus nigro, segmentis 3 ultimis pallide fuscis. L.  $4\frac{1}{2}$  lin.

Ecuador (Buckley).

Very distinct by the thorax truncate behind; prosternum compressed, subcarinate in front; intermediate coxal line well marked.

### Ægithus cardinalis.

£githus	cardinalis, Chev. Col. Mex. Cent. I. Fas.	4.
	, Lac. Erot. 284.	
	——— Crotch, Cist. Ent. 146.	
	rufipennis, Chev. Col. Mex. Cent. I. Fas. 4	4.
	, Lac. Erot. 281.	
M	Tooms Claste Dies Denome Vicement	

Mexico, Teapa, Costa Rica, Panama, Nicaragua. Var. a. Capite thoraccque supra infraque nigris : rufipennis, Chev.

Var. b. Capite thoraceque rufis, hoc tertia discoidali nigra, prosterno nigro, epipleuris rufis: cardinalis, Chev.

Var. c. Capite thoraceque rufis, prosterno et epipleuris rufis: meridionalis, Crotch.

I consider these three forms referable to one species, though the variation in outline is considerable. The intermediate coxal line is well marked.

### Ægithus clavicornis.

Chrysomela clavicornis, L. S. N. ed, x. 370 (1758). surinamensis, L. Cent. Ins. 10 (1763).

Egithus , Lac. 2700. 146. clavicornis, Crotch, Cist. Ent. 146. Costa Rica, Cayenne, Columbia, Ecuador, Amazons, Brazil, Nicaragua.

> Elytra gemellate striate: coxal lines visible. E.

# Ægithus hemisphæricus.

Egithus hemisphæricus, Lac. Erot. 289. Brazil.

### Ægithus inflatus, sp. n.

Hemisphæricus, nitidissimus, livido-fuscus, capite thoraceque subtiliter punctulatis, elytris lævibus, sat fortiter sed irregulariter gemellato-punctato-striatis, postice acuminato-productis; corpore subtus pallidiore, antennis nigris, tibiis tarsisque obscurioribus. L.  $5-5\frac{1}{4}$  lin.

Pebas (Bates).

This is the most convex of all the species of Egithus; the frontal margins are thickened and well marked.

### Ægithus politissimus, sp. n.

.E. inflato proximus, sed capite thoraceque fere levibus, elytris paulo minus convexis, interstitiis sparse sed profunde punctatis, postice minus acuminatis. L. 5 lin.

Ecuador (Buckley).

# Ægithus cordatus, sp. n.

Valde convexus, fere hemisphæricus, capite thoraceque sublevibus, elytris confuse gemellato-punctato-striatis, interstitiis fortiter punctatis, postice acuminato-productis; subtus totus rufotestaceus, scutello nigro, corpore subtus epipleurisque fulvis. 4 \frac{1}{4} \lin.

Amazons (Bates).

### Ægithus geminatus.

Ægithus geminatus, Lac. Erot. 287.

Rio Janeiro, Brazil.

Coloration of L. clavicornis, but smaller, and with gemellate striæ.

# Ægithus scurra.\*

Ægithus scurra, Lac. Erot. 288,

Brazil.

I have not seen the type: a specimen labelled ".E. scurra" in Chevrolat's collection, answering well to the description, has the rostrum coarctate.

### Ægithus Lebasii.

Egithus Lebasii, Lac. Erot. 285.

- cassideus, Lac. Erot. 295.

Columbia.

Distinct by its opaque elytra. \_E. cassideus is founded on an immature example of this species.

# Ægithus bulla.\*

Ægithus bulla, Lac. Erot. 289. Cayenne.

### Ægithus torquatus.

Ligithus torquatus, Lac. Erot. 291.

Cayenne.

Thorax broad, transverse.

### Ægithus lateritius.\*

Egithus lateritius, Lac. Erot. 293. Cayenne.

### Ægithus monochrous.

Egithus monochrous, Lac. Erot. 294. Cayenne.

### Ægithus lineola.

Ægithus lineola, Lac. Erot. 294.

Columbia.

Thorax convex, sides rather rounded.

### Ægithus dichrous, sp. n.

Convexus, rotundatus, rufo-testaceus, nitidus; capite thoraceque sublavibus, illo puncto verticali nigro, hoc nigro, vitta utrinque lateribus parallela testacea; scutello nigro; elytris nigris, tertia basali fulva, postice dentata, lævibus, gemellato-punctato-striatis, epipleuris nigris basi fulvis; corpore subtus pedibusque rufo-testaceis. L. 4 lin.

Amazons (Bates).

### Ægithus quadrinotatus.

# Ægithus satellitius.\*

Ægithus satellitius, Lac. Erot. 295.

# Ægithus striatellus, sp. n.

Ovatus, niger, nitidus, elytris fulvo-testaceis; capite lævi, elypeo fortiter punctato; thorace postice utrinque leviter sinuato; elytris punctato-striatis, striis vix gemellatis, postice evanescentibus, punctis nigris translucentibus; abdomine rufo-piceo. L. 3½—4 lin.

Ecuador (Buckley).

Coxal line short; the 6th and 7th strike are distant from the other five.

### Ægithus assimilis, sp. n.

Æ. striatello valde affinis, sed minor, elytris rufo-brunneis, abdomine rufo-testaceo differt. L.  $3-3\frac{1}{4}$  lin.

Amazons (Bates).

The strice are arranged as in *Æ. striatellus*, but the punctures are not translucent; the form is the same.

### Ægithus Jansoni.

"Egithus Jansoni, Crotch, Cist. Ent. 146. Nicaragua (Janson).

# Ægithus nigrocinctus.\*

Ægithus nigrocinctus, Er. Arch. f. Nat. XIII. 179 (1849). Peru.

# Ægithus luteus.\*

Ægithus luteus, Er. Arch. f. Nat. XIII. 179 (1849). Peru.

# Ægithus Boucieri.\*

Egithus Boucierii, Guér. Verh. z. b. V. Wien, v. 610 (1855). River Napo (Osculati).

### Ægithus bicolor.\*

Egithus bicolor, Kirsch, B. E. Z. ix. 99 (1865). Bogota,

### Brachysphœnus.

Lac. Erot. 296 (typ.--?).

A. Thorax semicircularly emarginate in front (Megaprotus, Lac.).

### Brachysphænus decussatus.\*

Brachysphænus decussatus, Lac. Erot. 298. Columbia.

Prosternum compressed, subcarinate in front, sutures curved, distinct; coxal lines absent.

### Brachysphœnus cinctellus.

Brachysphænus cinctellus, Lac. Erot. 300. Cayenne, Amazons (Bates). No coxal lines; sides of metasternum coarsely punctate. I am doubtful whether this is not a Cyclomorphus.

# Brachysphænus duodecimpustulatus.

Brachysphenus 12-pustulatus, Lac. Erot. 301. Cayenne, Amazons (Bates). Prosternum emarginate behind; no coxal lines.

# Brachysphænus moniliferus.

Mycotretus moniliferus, Guér. R. Z. 1841, 155. Brachysphænus — , Lac. Erot. 302. Cayenne. Allied to B. 12-pustulatus.

# Brachysphænus ephippium.

Erotylus ephippium, Dup. Erot. 39, T. III. f. 77.

Brachysphenus — , Lac. Erot. 302.

Brazil.

Prosternum truncate behind, less compressed than in the allied species; no coxal lines; elytra more obsoletely punctate-striate.

## Brachysphœnus signatus.

Erotylus signatus, Dup. Erot. 35, T. III. f. 67.

Brachysphænus -, Lac. Erot. 304.

Brazil.

Elytra rather obsoletely punctate-striate; no coxal lines. In a specimen received from M. Chevrolat the colour is of a bright lemon yellow.

## Brachysphœnus amabilis.

Brachysphænus amabilis, Lac. Erot. 305.

Brazil.

I have not seen the original type, but M. Reiche's specimen, which agrees with the description, appears to me certainly to be a variety of B. signatus.

# Brachysphænus perlepidus.\*

Brachysphænus perlepidus, Lac. Erot. 299. Cayenne.

#### Brachysphænus delineatus.

Brachysphænus delineatus, Lac. Erot. 306.

Panama, Brazil.

Prosternum emarginate; no coxal lines.

## Brachysphænus fasciunculus, sp. n.

B. delineato proximus, thorace angulis anticis solis flavis, fasciisque elytrorum læte flavis, latioribus, multo minus dentatis. L. 3 lin.

Amazons (Bates).

I can see no difference except in the form of the fasciæ; but have before me a series quite constant in this respect; in *B. delineatus* the basal fascia encloses 2 nearly round basal spots; in this species it merely encloses 2 transverse black marks.

## Brachysphænus fasciellus, sp. n.

B. delineato iterum peraffinis, et præsertim elytrorum pictura distincta. Thorax lateribus albidis. Elytra fascia latiore basali,

minus denticulata, subapicalique recta denticulata, flavis, L.  $3\frac{1}{4}$  lin.

Amazons (Bates).

The basal fascia here is somewhat oblique, following the external margin a little, and thus approaching B. circulus.

## Brachysphænus circulus.

Brachysphænus circulus, Lac. Erot. 307.

Cayenne, Pebas (Janson).

The vellow ring is equally broad and not denticulate.

## Brachysphænus zonula.

Brachysphænus zonula, Crotch, Cist. Ent. 147. Ecuador (Buckley), Nicaragua (Janson).

## Brachysphœnus duplicatus.

Brachysphænus duplicatus, Lac. Erot. 299. mediatus, Lac. Erot. 305.

Columbia.

Distinct by the smooth elytra; prosternum compressed; no coxal lines.

B. mediatus is a variety with the discoidal black fascia obsolete, leaving a broad fulvous band.

# Brachysphænus luteoniger, sp. n.

B. duplicato affinis, sed elytris fascia latissima lutea, tertia apicali, puncto basali humeroque solis nigris. L. 3\frac{1}{4} lin.

Ecuador (Buckley).

This is very like B. duplicatus var. mediatus, and possibly may sometimes have a discoidal fascia. The smooth elytra distinguish it from all except B. duplicatus.

## Brachysphænus sedecimpunctatus.

Brachysphænus 16-punctatus, Lac. Erot. 309.

Cavenne.

The thorax is almost quadrangularly emarginate in front; no coxal lines.

# Brachysphœnus pithecius.\*

Brachysphænus pithecius, Lac. Erot. 309.

Cayenne.

Brachysphænus 6-sigillatus, Lac. Erot. 390.

Brazil.

Thorax semicircularly emarginate; elytra nearly smooth; intermediate coxal lines visible.

## Brachysphœnus eximius.\*

Brachysphænus eximius, Lac. Erot. 393.

Brazil.

Extremely brilliant and polished; thorax semicircularly emarginate; no coxal lines.

B. Head deeply foveolate in front in the male, anterior tarsi dilated.

## Brachysphænus coadunatus.

Brachysphænus coadunatus, Lac. Erot. 303. Cayenne, Amazons (Bates).

## Brachysphœnus nubilus.

Brachysphoenus nubilis, Lac. Erot. 310.

Cavenne.

The head is deeply foveolate in the male; the intermediate coxal line visible.

#### Brachysphœnus masculinus, sp. n.

Ovatus, niger, sat convexus, capite antice, antennis basi, abdomine subtus, elytrisque fascia sat lata communi sub basali rufotestaceis; capite thoraceque subtilissime punctulatis, antennis sat elongatis, elytrorum fascia in medio latiore, usque ad scutellum producta, L. 3\frac{1}{2} lin.

Amazons (Bates).

3. capite antice profunde foveolato, tarsis 4 anterioribus dila-

Distinct by the short, rather stout, tarsi and the male characters. No coxal lines.

# Brachysphænus lætus, sp. n.

B. masculino affinis, sed elytris aurantiacis, tertia apicali, puncto geminato basali, humeroque nigris; corpore subtus fulvo, pedibus rufo-piceis. L. 3½ lin.

Amazons (Bates).

This species has the red head and dilated tarsi as in B. masculinus.

#### C. Elytra gemellate punctate-striate.

#### Brachysphænus porcellana,

Brachysphænus porcellana, Lac. Erot. 300.

Cayenne.

Thorax semicircularly emarginate in front; prosternum compressed into an acute ridge, pointed in front, broad and slightly emarginate behind, with no sutures visible; sides of metasternum deeply punctate; posterior tarsi long; no coxal lines.

# Brachysphænus orphanulus.\*

Brachysphænus orphanulus, Lac. Erot. 307. Cayenne.

## Brachysphænus manicatus.\*

Brachysphænus manicatus, Lac. Erot. 312.

Columbia.

This is very near *Egithus*; the intermediate coxal line is complete, the posterior absent; the strike of the elytra are closely approximate, leaving broad smooth interstices.

#### Brachysphœnus annulatus.

Erotylus annulatus, Germ. N. Ins. Sp. 613. Brachysphænus — , Lac. Erot. 330.

Brazil.

Prosternum broad behind, rather deeply emarginate; no coxal lines; thorax almost semicircularly emarginate in front; antennæ with a 3 jointed club.

#### Brachysphænus conspersus.

Erotylus conspersus, Dup. Erot. 28. T. II. f. 48.

Brachysphænus - , Lac. Erot. 342.

Brazil.

This species is certainly closely allied to *B. annulatus*: the antennæ are elongate with a 3-jointed club; the intermediate coxal line is present, but abbreviated; the thorax is semicircularly emarginate in front.

# Brachysphænus epigraphus, sp. n.

Rufo-testaceus, oblongo-ovatus, nitidus, elypeo punctato; thorace convexo, lateribus rotundatis, vix punctato, nigro-signato; seutello nigro; elytris flavo-testaceis, gemellato-punctato-striatis, interstitiis punctis paucis, confuse nigro-signatis. L.  $4\frac{1}{6}$  lin.

Amazons (Bates).

The coloration resembles that of *Scaph. zigena*; and is difficult to describe; in the type there is a humeral and basal spot, a very waved (but entire) fascia at  $\frac{1}{4}$ , an externally abbreviated (and often interrupted) fascia in the middle, an irregular interrupted (but starting from the margin) fascia at  $\frac{2}{3}$ , and an irregular dentate line at  $\frac{3}{4}$ , all black; these however vary so much in their intensity as to be very difficult to recognize sometimes.

Prosternum convex, emarginate behind; no coxal lines; metasternum with the sides strongly punctate; anterior tarsi stout, 8th joint longer than the 2nd; antennæ with a 3-jointed club.

## Brachysphænus luteopictus, sp. n.

Oblongo-ovatus, rufo-testaceus, nitidus, capite postice nigro, clypeo punctato; thorace sat lato, convexo, lateribus rotundatis, antice semicirculariter emarginato, nigro, vix punctato, lateribus anguste rufo-testaceis; elytris ochraceo-flavis, sutura marginibus epipleurisque rufo-testaceis, nigro-pictis, obsolete gemellato-punctato-striatis, interstitiis parcissime punctatis; scutello nigro. L. 4 lin.

Amazons (Bates).

Anterior tarsi dilated, joints 1—3 subequal, antennæ with a 3-jointed club. Prosternum very convex, emarginate behind; no coxal lines. The colouring of the elytra is probably variable: in the type there is a small dot in the middle of the base, a well-defined cordate common spot below the scutellum, an irregular transverse mark at \( \frac{1}{3} \) on the disc, connected from the middle with a common fascia at \( \frac{2}{3} \) (which is dilated on the disc, and again at the suture), and the apical \( \frac{1}{4} \) black.

#### Brachysphænus fasciatus.

Erotylus fasciatus, Oliv. E. M. vi. 433 (1791).

— trifasciatus, Oliv. Ent. v. 473. T. H. f. 16 (1807).

Brachysphænus — , Lac. Erot. 384.

Brazil; abundant.

Recognizable by its opaque surface; the tarsi are short and stout; no coxal lines.

#### Brachysphænus tricinctus.

Erotylus tricinetus, Dup. Erot. 13. T. I. f. 16. Brachysphænus —, Lac. Erot. 385.

Cayenne.

Both coxal lines are present, but much abbreviated.

Var. rectesignatus. Elytris fasciis nigris rectis haud denticulatis. Amazons (Bates).

# Brachysphænus peraffinis, sp. n.

B. rectesignato simillimus, lineis coxalibus nullis, metasternoque lateribus profunde punctatis tantum differt.

Amazons (Bates), Pebas (Janson).

## Brachysphœnus bizonatus, sp. n.

B. tricincto affinis, sed paulo minor, thorace breviore, elytris lete flavis fascia recte paulo ante medium, tertiaque apicali nigris. L. 5 lin.

Amazons (Bates).

The intermediate coxal line is abbreviate, the posterior entirely wanting; the epipleuræ of the elytra are yellow, with the apical  $\frac{1}{2}$  black.

#### Brachysphænus musicalis.

Brachysphanus musicalis, Lac. Erot. 388.

Columbia.

No coxal lines; sides of metasternum coarsely but obsoletely punctate; head with two red spots; meso- and metasternum punctate and finely pilose in the middle.

#### Brachysphænus nigropictus.

Brachysphænus nigropictus, Lac. Erot. 387.

\_\_\_\_\_\_, Crotch, Cist. Ent. 147.

Columbia, Nicaragua (Janson).

The head has sometimes two red spots in front; no coxal lines; the meso- and metasternum are punctate and finely pilose along the middle.

Var. decoloratus. Rufo-testaceus, thorace punctis 9 nigris (4 anticis 5 posticis); elytris nigro-signatis, apice rufo-testaceo.

Amazons (Bates).

## Brachysphænus Erichsoni.

Brachysphænus Erichsoni, Lac. Erot. 390. Columbia.

Intermediate coxal line present, abbreviate.

#### Brachysphænus Westwoodii.

Zonarius Westwoodii, Guér. R. Z. 1841, 117. Brachysphænus — , Lac. Erot. 391.

Bolivia.

I have only seen the variety described from M. Chevrolat's collection; in this the elytra are almost smooth; the intermediate coxal line is present, abbreviate.

## Brachysphœnus quadrifasciatus.\*

Brachysphænus 4-fasciatus, Kirsch, B. E. Z. IX. 98. Bogota.

## Brachysphœnus Bremei.\*

Zonarius Bremei, Guér. R. Z. 1841, 117. Brachysphænus — , Lac. Erot. 393. Bolivia. No coxal lines.

#### Brachysphænus bicinctus.

Erotylus bicinctus, Oliv. Ent. v. 89. 472, T. II. f. 15. Brachysphenus — , Lac. Erot. 381. Amazons (Bates).

This species resembles Micrerotylus Gronovii, Hbst., in coloration, but differs from it in structure; it has the thorax convex and the prosternum without side pieces.

#### Brachysphænus geometra.

Brachysphænus geometra, Lac. Erot. 381. Erotylus alternans, Oliv. Ent. v. 89, T. 1. f. 10 a. Cayenne.

# Brachysphænus lugens.\*

Brachysphænus lugens, Lac. Erot. 384. Columbia.

D. First joint of posterior tarsi elongate (Habrodactylus, Lac.).

## Brachysphænus perspicillatus.

Brachysphænus perspicillatus, Lac. Erot. 312. Columbia.

Intermediate coxal line visible, reaching half across the metasternum, side pieces distinct.

## Brachysphænus quadrimaculatus.

Erotylus 4-maculatus, Dup. Erot. 29, T. II. f. 25. Brachysphænus — , Lac. Erot. 313. Brazil.

## Brachysphænus bistripunctatus.

Brachysphænus bistripunctatus, Lac. Erot. 314. Cayenne, Amazons (Bates). No coxal line.

# Brachysphænus detritus.

Brachysphænus detritus, Lac. Erot. 314. Morphoides ? nebulosus ||, Guér. R. Z. 1841, 118. Columbia.

No coxal line.

The specific name cited in synonymy is preoccupied by Guérin's Ischyrus nebulosus, now in this genus.

## Brachysphænus oblongonotatus.

Brachysphænus oblongonotatus, Lac. Erot. 315. Columbia, Amazons (Bates). Intermediate coxal line well marked.

# Brachysphænus vetula.\*

Brachysphænus vetula, Lac. Erot. 316. Cayenne.

#### Brachysphœnus decempunctatus.

Erotylus 10-punctatus, Dup. Erot. 38, T. III. f. 74. Brachysphenus ——, Lac. Erot. 317.

Brazil.

Intermediate coxal line well marked; antennæ with a 3-jointed club.

# Brachysphænus bisquinquepunctatus.\*

Brachysphænus bisquinquepunctatus, Lac. Erot. 318. Cayenne.

Appears to differ from B. 10-punctatus mainly by the black thorax.

#### Brachysphænus basinotatus, sp. n.

B. 10-punctato affinis, sed minor, niger, abdomine elytrisque tantum rufo-testaceis, his singulis punctis duabus nigris, I basali, I prope marginem pone humerum.
L. 3 lin.

Brazil.

#### Brachysphænus congener.

Brachysphænus congener, Lac. Erot. 318. Rio Janeiro, Brazil. No coxal lines.

#### Brachysphœnus meleagris.

Brachysphænus meleagris, Lac. Erot. 320. Cavenne.

Intermediate coxal line present, margin of the front thickened.

# Brachysphænus deficiens, sp. n.

B. meleagridi persimilis, sed elytris singulis maculis sex tantum luteis (2 apicalibus deficientibus) distinctus. L. 3 lin.

Amazons (Bates).

# Brachysphænus obliqueguttatus, sp. n.

Ovatus. rufescens, oculis prominentibus, clypeo sat magno, fronte lateribus incrassatis; thorace brevi, subtilissime punctulato, plano, antice in medio nigro-marginato; elytris obsolete punctato-striatis, singulis maculis 4 luteis nigro-cinetis, 1 basali prope scutellum, 1 pone humerum prope marginem, 1 elongata prope suturam pone medium, 1 rotundata prope marginem apicem versus. L. 3 lin.

Brazil.

Intermediate coxal line abbreviate, deeply impressed.

# Brachysphænus melanostictus, sp. n.

Ovatus sat convexus, ochraceus subtus testaceus, capite ante oculos utrinque lineola impressa; thorace plano, punctulato, antice in medio nigro-marginato; scutello nigro; elytris punctato-striatis, striis ante apicem evanescentibus, singulis maculis 4 subquadratis nigris; 2 prope suturam (1 ante, 1 poue medium), inferiore elongata, 2 transverse positis in medium, prope marginem (interiore elongata); corpore subtus testaceo, tibiis nigris. L. 4½ lin.

Écuador (Buckley).

Distinct by the 3-jointed club to the antennæ and the impressed head, which resembles Coccinorphus.

## Brachysphænus tetrastictus, sp. n.

Ovatus, rufo-testaceus, capite antice utrinque leviter impresso, frontis marginibus incrassatis; thorace punctulato, plano; scutello nigro; elytris punctato-striatis, tenuissime nigro-marginatis, singulis maculis 4 rotundatis nigris, subocellatis; 1 prope suturam, ad quartam, 1 prope marginem, ad tertiam, 1 discoidali, in medio, 1 prope suturam pone medium. L.  $4\frac{1}{4}$  lin.

Amazons (Bates).

Intermediate coxal line visible. Antennæ with a 3-jointed club. Rather like B. melanostictus, but the spots equal-sized and the colour rufescent.

## Brachysphœnus mendax.\*

Brachysphenus mendax, Lac. Erot. 321.

litigiosus, Lac. Erot. 322.

Rio Janeiro, Brazil (Lacordaire).

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Intermediate coxal line distinct, antennæ with a 3-jointed club. *B. litigiosus* is only an immature example of this species. I should prefer to describe it as obscurely fulvous, with two dark interrupted common fasciæ.

# Brachysphænus palmatus.

Brachysphænus palmatus, Lac. Erot. 347. Columbia.

#### Brachysphænus fuscomaculatus.

Erotylus fuscomaculatus, Dup. Erot. 28, T. 11. f. 50. Brachysphænus ——, Lac. Erot. 322. Brazil.

## Brachysphænus Hoffmanni.

Brachysphænus Hoffmanni, Lac. Erot. 323. Brazil

## Brachysphœnus sulphurifer.

Brachysphænus sulphurifer, Lac. Erot. 324. Brazil,

#### Brachysphænus Kourouensis.\*

Brachysphænus Kourouensis, Lac. Erot. 325. Cayenne (Turin).

# Brachysphænus hybridus.

Brachysphænus hybridus, Lac. Erot. 319. Rio Janeiro, Brazil.

## Brachysphœnus rufescens.

Brachysphænus rufescens, Lac. Erot. 319. Cayenne.

#### Brachysphænus hæmatomelas.\*

Brachysphænus hæmatomelas, Lac. Erot. 320. Bolivia ?

#### Brachysphenus oblitus.\*

Brachysphænus oblitus, Lac. Erot. 325. Mexico.

# Brachysphænus hæmatites.\*

Brachysphænus hæmatites, Lac. Erot. 326. Cayenne.

# Brachysphænus spadiceus.

Brachysphænus spadiceus, Lac. Erot. 409. Cavenne.

## Brachysphœnus ictericus.

Brachysphænus ictericus, Lac. Erot. 327. Cavenne.

## Brachysphænus antennalis.\*

Brachysphænus antennalis, Lac. Erot. 410. Cavenne.

## Brachysphœnus fuscipes.\*

Brachysphænus fuscipes, Lac. Erot. 410. Brazil (Lacordaire).

## Brachysphœnus discus.\*

Brachysphænus discus, Lac. Erot. 327. Cayenne (Turin).

# Brachysphænus cordiger, sp. n.

Ovatus, latior, testaceus, antennis (basi excepta) nigris, elytris macula magna communi (antice pone scutellum emarginata) picea; capite leviter punctulato; thorace disco vix punctulato, lateribus punctatis, plano, testaceo, basi punctis majoribus impressis; scutello lævi; elytris, lævibus, punctato-striatis, striis latera versus fortius punctatis; corpore subtus lævi. L. 3½ lin.

Ega (Bates).

The punctuation of the thorax is peculiar.

## Brachysphænus concolor.

Brachysphænus concolor, Lac. Erot. 328. Cayenne.

#### Brachysphœnus punctiger.\*

Brachysphænus punctiger, Lac. Erot. 328. Cavenne.

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## Brachysphœnus subsignatus.\*

Brachysphænus subsignatus, Lac. Erot. 329.

Cayenne (Turin).

Elytra deeply punctate-striate, interstices punctulate; thorax with the base deeply punctate.

# Brachysphænus centromaculatus.

Brachysphænus centromaculatus, Lac. Erot. 329. Cayenne. Elytra very coarsely punctate striate.

## Brachysphœnus agathinus.

Erotylus agathinus, Guér. R. Z. 1841, 154. Brachysphænus —, Lac. Erot. 411. Brazil.

# Brachysphænus deletus.\*

Brachysphænus deletus, Lac. Erot. 408. Cayenne (Lacordaire).

## Brachysphænus rufifrons.\*

Brachysphænus rufifrons, Lac. Erot. 409. Columbia (Lacordaire).

E. Ovate, convex, thorax elongate, flat, tarsi elongate (Acronotus, Lac.).

# Brachysphænus annularis.

Erotylus annularis, Lap. Hist. Nat. 11. 520 (1840). Brachysphenus — Lac. Erot. 333. Columbia, Mexico. No coxal lines.

# Brachysphænus Columbii.

Brachysphænus Columbii, Guér. Icon. R. A. Ins. 311 (1846). Columbia.

F. Elongate, tarsi elongate, prosternum strongly compressed, produced in front (Sternolobus, Guér.).

# Brachysphœnus dispilotus.

Brachysphænus dispilotus, Lac. Erot. 334. Columbia. Intermediate coxal line very short; club of antennæ 3-jointed, 9th joint elongate-triangular, longer than the 10th; eyes small; striæ of the elytra effaced externally.

## Brachysphœnus bisignatus.

Erotylus bisignatus, Guér. R. Z. 1841, 115. Brachysphænus — , Lac. Erot. 335. Columbia.

Closely allied to B. dispilotus.

# Brachysphænus oblongosignatus.

Brachysphænus oblongosignatus, Guér. R. A. Ins. 311. Columbia.

No coxal lines; the prosternum is a little less strongly keeled.

# Brachysphænus ecuadorensis, sp. n.

Oblongo-ellipticus, testaceus, antennis pedibusque (femoribus basi exceptis) nigris; thorace punctulato, basi utrinque sinuato, antice leviter emarginato, sat fortiter angustato; scutello rufo-testaceo; elytris nitidis, griseis, tenue nigro-marginatis, epipleuris nigris, dorso punctato-striato, paulo pone medium macula irregulari subquadrata pallide cineta. L. 5 lin.

Ecuador (Buckley).

Resembles B. bisignatus, but the prosternum is much less developed, and the intermediate coxal line is present.

G. Thorax transverse, flat; tarsi rather robust, the first joint very rarely elongate. (Iphiclus, Lac.)

# Brachysphœnus sexpunctatus.

Erotylus 6-punctatus, Dup. Erot. 39, T. III. f. 78. Brachysphænus — , Lac. Erot. 337.

Brazil

No coxal line; thorax with some coarser punctures on each side at the base; elytra gemellate striate-punctate.

# Brachysphænus varians.

Brachysphænus varians, Lac. Erot. 344.

M-nigrum, Lac. Erot. 346.

Brazil

Differs from the other species by the well-marked punctate fovea at the base of the thorax, the externally incomplete rectangular sutures of the prosternum, the very short coxal line, and the gemellate striæ.

 $\bar{B}$ . M-nigrum is a pale form.

# Brachysphænus rubidus.

Erotylus rubidus, Dup. Erot. 30, T. 11. f. 53.

Brachysphænus - , Lac. Erot. 331.

Brazil.

Differs from B. 6-punctatus by the presence of a coxal line, and by the prosternum being slightly compressed forming a point on the anterior margin. The interstices of the elytra are distinctly punctulate.

# Brachysphænus flavovittatus.

Erotylus flavovittatus, Dup. Erot. 30, T. 11. f. 55. Brachysphænus — , Lac. Erot. 339.

Brachysphænus — , . Brazil.

Coxal line present, thorax with a punctured fovea at the base. The 1st joint of the posterior tarsi does not appear to me shorter than usual.

## Brachysphænus tenuecinctus.

Brazil, Upper Amazons. Lac. Erot. 340.

## Brachysphœnus sedecimmaculatus.

Erotylus 16-maculatus, Buq. R. Z. 1840, 173. Brachysphænus — , Lac. Erot. 349.

Columbia.

Coxal line very short; head produced, clypeus punctate; thorax

punctulate, base with a few coarser punctures.

Var. concentrata. Smaller, with the elytra more deeply striate, the spots much paler and smaller, the thorax less foveolate at the base.

#### Brachysphœnus sedecimpustulatus.

Brachysphænus 16-pustulatus, Lac. Erot. 349.

Amazon (Bates).

Guérin's type was not in his collection in 1872, and the specimen from the Amazon has no spots on the thorax, but it agrees in all other respects.

# Brachysphœnus basalis, sp. n.

B. 16-pustulato affinis, sed elytris singulis linea transversali basali albida nigro-cincta, maculisque sex albidis late nigro-cinctis. L.  $4\frac{1}{2}$  lin.

Amazons (Bates).

[These 4 species all have the spots arranged in a similar manner and may possibly be varieties; they appear to be rare in collections.]

#### Brachysphænus sedecimguttatus.

Erotulus 16-auttatus, Oliv. E. M. vi. 436 (1791). , Oliv. Ent. v. 477, T. 11. f. 23. , Dup. Erot. 24, T. 11. f. 39. thoracicus, Voet. II. T. XXXIII. f. vii.

Brachysphænus 16-auttatus, Lac. Erot. 348.

Cayenne, Venezuela, Amazons (Bates).

Thorax somewhat convex, with three or four coarse punctures on each side the base.

#### Brachysphænus vigintipunctatus.

Erotylus 20-punctatus, Oliv. E. M. vi. 436 (1791). 20-guttatus, Germ. Ins. Sp. Nov. 612 (1824). \_\_\_\_\_, Dup. Erot. 24, T. II. f. 38. Brachysphænus — , Lac. Erot. 350. Brazil Coxal line visible; thorax with a basal punctate fovea.

#### Brachysphænus octodecimentatus.

Brachysphænus 18-auttatus, Lac. Erot. 351. Rio Janeiro, Brazil.

#### Brachysphænus guttatus.

Erotylus guttatus, Dup. Erot. 23, T. II. f. 37. Brachysphænus -, Lac. Erot. 352. Brazil.

#### Brachysphœnus lineellus.

Erotylus lineellus, Dup. Erot. 29, T. 11. f. 51. Brachysphænus - , Lac. Erot. 354. Erotylus amabilis, Guér. R. Z. 1841, 154.

Allied to B. guttatus, but the thorax is entirely destitute of the basal fovea.

# Brachysphœnus pardalinus.

Brachysphænus pardalinus, Lac. Erot. 355. Brazil.

## Brachysphœnus abdominalis.

Erotylus abdominal	is, Oliv. E. M. vr. 433 (1791).
	, Oliv. Ent. v. 474, T. II. f. 18.
	, Hbst. Natursyst. Col. viii. 377.
	, Dup. Erot. 15, T. I. f. 19.
Brachysphænus -	, Lac. Erot. 398.
Brazil,	
No coxal line.	

## Brachysphænus ventralis.

Brazil.

Brazil.

# Brachysphænus flexuosus.\*

Brachysphænus flexuosus, Lac. Erot. 400. Brazil (Robyns).

## Brachysphænus decemnotatus.

Erotylus 10-notatus, Dup. Erot. 16, T. 1, f. 22. Brachysphænus — , Lac. Erot. 340. Brazil.

Coxal line visible; thorax without basal fovee; head produced in front beyond the eyes; elytral strike effaced externally.

A large form with rufous spots is labelled "rufonotatus" by Reiche, but it does not differ specifically.

## Brachysphænus cingulatus.

Brachysphænus cingulatus, Lac. Erot. 341. Brazil

Coxal line very short; head produced in front; thorax with the sides rounded, base equal.

#### Brachysphœnus pictus.

Erotylus pictus, Dup. Erot. 19, T. 1. f. 28. Brachysphænus — , Lac. Erot. 341.

Brazil.

Coxal line short; prosternum deeply emarginate behind.

# Brachysphænus chelonarius.

Brazil.

Brazil.

#### Brachysphænus intersectus.

Erotylus intersectus, Dup. Erot. 20, T. II. f. 29.
Ischyrus? —— , Lac. Erot. 131.
Brazil.

This is evidently a *Brachysphænus*, and may be conveniently located here.

H. Elytra entirely smooth, opaque; no coxal lines; tarsi short; antennæ with a 4-jointed club, the joints elongate-quadrate. (Legithomorphus, Lac.)

## Brachysphænus biplagiatus.\*

Erotulus biplagiatus, Guér, R. Z. 1841, 119. Brachysphænus — , Lac. Erot. 374.

Brazil.

Guérin's type was not in his collection in 1872.

# Brachysphænus dorsomaculatus.\*

Brachusphanus dorsomaculatus, Lac. Erot. 375. Brazil.

Body oval, acuminate before and behind; tarsi short; strice of the elytra gemellate; thorax slightly emarginate in front; no coxal lines; antennæ with a large 4-jointed club, 9th joint elongate-quadrate. (Oogaster, Lac.)

#### Brachysphænus guadeloupensis.

Galleruca quadelouvensis, Fab. Ent. Syst. II. 16. Brachysphænus \_\_\_\_ , Lac. Erot. 377.

suturalis, Lac. Erot. 378.

Guadeloupe.

B. suturalis is founded on a very immature example.

K. Form subparallel, colour brick-red and black; thorax flat, subquadrate, base often with a punctate fovea; elytra opaque, with 5-6 dorsal striæ, striæ sometimes gemellate; coxal lines generally absent. (Saccomorphus, Dej.)

#### Brachysphœnus nebulosus.

Erotylus nebulosus, Guér. R. Z. 1841, 155.

Brachysphænus —, Lac. Erot. 357.

Sta. Cruz de la Sierra, Bolivia,

Thorax very flat, with a small punctate basal fovea; intermediate coxal line very short.

#### Brachysphænus bimaculatus.

Erotylus bimaculatus, Germ. Ins. Sp. Nov. 612 (1824).

Brachysphonus —, Luc. Erot. 12, T. I. f. 13.
Brazil, Rio Janeiro, Minas Geraes.

Thorax opaque, two or three coarse punctures at the base only; elytra very faintly striate, the striæ gemellate; no coxal line.

## Brachysphœnus ruficeps.

Erotylus ruficeps, Guér. R. Z. 1841, 118.

Brachysphænus —, Lac. Erot. 359.

Columbia, Bolivia, Peru.

A very variable species. The thorax has a well-marked basal fovea,

# Brachysphænus hæmatocephalus.

Brachysphænus hæmatocephalus, Lac. Erot. 361. Columbia.

Elytra with a large oblong-quadrate black spot; no coxal line; metasternum finely punctate and sparingly pubescent.

## Brachysphænus glyptoderus.

Brachysphænus glyptoderus, Lac. Erot. 361.

Columbia, Ecuador (Buckley), Pebas (Bates).

Nearly as variable as *B. ruficeps*. Underside as in *B. hæma-tocephalus*; the impressions on the thorax seem constant; the elytra are deeply striate, externally irregularly punctate.

# Brachysphænus Klugii.

Brachysphænus Klugii, Lac. Erot. 362.

Brazil, Chili (Germain).

The thorax is elongate and scarcely perceptibly narrowed in front; no coxal line; elytra nearly smooth; metasternum canaliculate, opaque, not punctate; antennæ very short.

## Brachysphænus quadrisignatus.

Erotylus 4-signatus, Dup. Erot. 42, T. 111. f. 86. Brachysphænus — , Lac. Erot. 363. Brazil.

# Brachysphœnus limbatus.

	* <del>-</del>
	Erotylus limbatus, Oliv. E. M. vi. 437 (1791).
	— , Oliv. Ent. v. 477, T. 11. f. 25.
	, Fab. Ent. Syst. 1, 2, 39 (1792)—Syst. Ed
11.	
	, Hbst. Natursyst. Col. viii. 379.
	, Dup. Erot. 42, T. III. f. 85.
	Brachysphænus - , Lac. Erot. 364.

Cayenne.

Head and thorax punctulate; strize of the elytra gemellate; no coxal line.

# Brachysphænus bisigillatus.

Brachysphænus bisigillatus, Lac. Erot. 365. Columbia. This is probably a variety of B. limbatus.

# Brachysphænus Adamsii.

Brachysphænus Adamsii, Lac. Erot. 366. Columbia, Upper Amazons. Probably a variety of B. limbatus.

# Brachysphænus bilineatus.

Erotylus bilineatus, Dup. Erot. 42, T. III. f. 85. Brachysphænus —, Lac. Erot. 365. Brazil.

Less parallel than the others; thorax distinctly narrowed in front; strize of the elytra gemellate, interstices punctate.

## Brachysphœnus erotyloides, sp. n.

Læte rufo-testaceus, subovatus, capite parvo, antice impresso, antennis nigris, articulo 1º fulvo, clava vix incrassata; thorace brevi plano, leviter emarginato, lateribus fortiter rotundatis, basi utrinque fortiter sinuato, profunde foveolato, disco punctato; elytris convexis dorso punctato-striatis (striis 5-6) lateribus confuse fortiter punctatis, disco macula magna communi nigra (fere marginem attingente); corpore subtus rufo-testaceo, pectoris lateribus nigris, segmentis ventralibus lateribus nigro-maculatis. L. 4½ lin.

Amazons (Bates).

This species is difficult to place; its coloration is precisely that of the present section however. No coxal lines.

L. Ovate, convex species; coxal line present; prosternum compressed; coloration of Saccomorphus. (Morphoides, pars, Lac.)

# Brachysphænus Lacordairii.

Erotylus clavicornist, Oliv. E. M. vi. 435 [nec Linn.]. , Oliv. Ent v. 479, T. II. f. 28. , Dup. Erot. 13, T. I. f. 14. Brachysphænus — , Lac. Erot. 367.

Brazil.

Thorax with a line of coarse punctures in the basal sinuation; prosternum decidedly keeled; intermediate coxal line visible.

## Brachysphænus Columbiæ, sp. n.

B. Lacordairii persimilis, sed major, abdomine nigro elytrisque striis distincte gemellatis facile distinguendus. L. 61 lin.

Bogota (Janson).

This species retains the oval outline of B. Lacordairii.

#### Brachysphænus amazonus, sp. n.

B. Lacordairii similis, sed multo major, convexus, antennis articulis 1-2 rufis, striisque elytrorum subgemellatis distinctus videtur. L. 7-71 lin.

Amazons (Bates).

The elytra are suddenly convex, thus breaking the uniform outline.

# Brachysphænus nigriventris, sp. n.

B. amazono simillimus, sed antennarum basi abdomineque nigris, thorace lævi, striis elytrorum distincte gemellatis. L. 7-73 lin.

Ecuador (Buckley).

## Brachysphœnus immaculatus.

Brachysphænus immaculatus, Lac. Erot. 369.

Thorax with a few basal punctures; form ovate, depressed; elytra with the striæ subgemellate, 3rd and 4th distant at the base.

#### Brachysphænus bicolor.

Brachysphænus bicolor, Lac. Erot. 368.

Elytra opaque, impunctate; coxal line visible; thorax without any basal punctures.

## Brachysphænus dorsonotatus.

Brachysphænus dorsonotatus, Lac. Erot. 370.

hæmatopterus, Lac. Erot. 371. Brazil.

Thorax with no basal punctures; elytra smooth, opaque.

B. hæmatopterus has the elytra immaculate.

#### Brachysphœnus rubripennis.

Brachysphænus rubripennis, Lac. Erot. 372.

Brazil.

Distinct by the shorter thorax and the uniform strice of the elytra.

## Brachysphœnus simplex.

Brachysphænus simplex, Lac. Erot. 372.

Brazil.

Opaque, rather convex, striæ of elytra effaced externally; coxal line visible.

# Brachysphœnus tibialis.

Erotylus tibialis, Dup. Erot. 26, T. II. f. 44.

Brachysphænus, Lac. Erot. 373.

Brazil.

Differs by the elytral strike being entire, and the scutellum black.

# Brachysphænus lateripunctatus, sp. n.

Ovatus, rufo-testaceus, nitidus, capite punctulato, antice late impresso; thorace plano, fere lævi, basi lobato, lateribus vix rotundatis; elytris punctato-striatis (striis 7), lateribus confuse punctatis, macula nigra subquadrata laterali in medio; corpore subtus rufo-testaceo, antennis tibiisque nigris. L 5½ lin.

Ecuador (Buckley), Amazons (Bates).

Coxal line visible.

M. Ovate convex species; thorax convex without any basal fovea; coloration generally black and yellow, thorax nearly always black (Barytopus, Lac.).

#### Brachysphænus flavofasciatus.

Erotylus flavofasciatus, Dup. Erot. 14, T. I. f. 18.

Brachysphænus — , Lac. Erot. 386.

Brazil.

Surface finely alutaceous; no coxal line.

Var. Thorace angulis læte flavis, elytris fasciis latioribus, externe confluentibus.

# Brachysphœnus epipleuralis, sp. n.

Oblongo-ovatus, niger, palpis maxillaribus læte ochraceis, elytris fasciis 2 latioribus epipleurisque (apice excepta) flavis; capite thoraceque punctulatis, hoc punctis paucis majoribus ad basin; elytris, punctato-striatis (striis 7), fascia prima basali ad suturam interrupta a macula triangulari scutellari; fascia secunda (pone medium) recta ad suturam interrupta. L. 5¾ lin.

Amazons (Bates).

## Brachysphænus luteozonatus, sp. n.

B. epipleurali valde affinis, sed minor, epipleuris nigris, fascia prima rectiore, secunda antice obliqua distinctus. L. 5 lin.

Amazons (Bates).

The discoidal black fascia is here narrowed towards the suture, instead of being straight as in the preceding species.

## Brachysphænus odyneroides, sp. n.

Oblongo-ovatus, postice paulo acuminatus, nitidus, niger, palpis ochraceis, capite punctis 2 rufis, segmentis ventralibus rufo-maculatis; thorace convexo, punctulato, basi haud foveolato, elytris punctato-striatis (striis 7), fasciis 3 epipleurisque flavis, 1 basali angustiore ad suturam interrupta, 1 latiore in medio, integra, 1 subapicali, interrupta, antice curvata. L. 5 lin.

Ega (Bates).

A variable species, the 2nd fascia is sometimes interrupted and the subapical one nearly entire.

#### Brachysphænus dorsalis.

Erotylus dorsalis, Oliv. Ent. v. 475, T. II. f. 20.

Cavenne.

The strice of the elytra are sub-gemellate; intermediate coxal line visible.

## Brachysphænus quinquefasciatus.

Brachysphænus 5-fasciatus, Lac. Erot. 396.

Columbia, Ecuador (Buckley), Pebas (Janson).

Ventral segments distinctly punctate.

The following varieties occur of this species, all having a similar punctuation and structure:

Var. orthozonius.

Like the type, except that the fasciæ are nearly straight and not denticulate.

Ecuador (Buckley).

Var. anisozonius.

In this form the basal, medial, and apical fascize are broad and nearly straight; the other 2 narrow and denticulate.

Ecuador (Buckley), Amazons (Bates).

Var. basicinctus.

The basal fascia is entire and, as well as the other four, straight; the basal fascia is often connected with the 2nd. A subordinate variety has the thorax with 2 transverse series of 4 red spots.

Amazons (Bates).

## Brachysphænus Brongniarti.

Brachusphænus Bronaniarti, Lac. Erot. 397.

, fasciato-punctatus, Lac. Erot. 396. Var. \_\_\_\_\_

Columbia, Bolivia,

B. fasciato-punctatus is a variety with the basal bands much reduced.

# Brachysphænus distinctus.

Erotylus distinctus, Dup. Erot. 44.

Brachysphænus —, Lac. Erot. 394.

Cavenne.

Rather broad and depressed; clypeus deeply punctate; elytra with a marginal row of punctures; coxal line visible.

## Brachysphænus eburneus, sp. n.

B. distincto affinis, sed paulo minor, elytris dimidio basali eburneo, fascia denticulata sat lata communi nigra, externe abbreviata, punctisque 2 externis nigris. L. 5 lin.

Amazons (Bates).

This is very like distinctus except that the black has further invaded the elytra.

## Brachysphænus adustus.

Erotylus adustus, Dup. Erot. 27, T. II. f. 47. Brachysphænus - , Lac. Erot. 395.

Brazil.

Closely allied to B. distinctus.

## Brachysphœnus spectabilis.\*

Brachysphænus spectabilis, Lac. Erot. 392. Columbia.

## Brachysphænus Venezuelæ, sp. n.

B. spectabili affinis, sed major, abdomine nigro, elytris fascia prima nigra utrinque abbreviata, puncto laterali nigro ante medium, punctisque duobus basalibus nigris distinctus. L. 43 lin.

Venezuela.

## Brachysphœnus tripartitus.\*

Brachysphænus tripartitus, Lac. Erot. 386.

Columbia.

Coxal line visible.

# Brachysphænus obsolete-signatus, sp. n.

Oblongo-ovatus, niger, palpis ochraceis, elytris epipleurisque flavo-ochraceis (tertiâ apicali nigra); elypeo punctato; thorace sat convexo, subtiliter punctulato, basi punctis paucis majoribus; elytris punctato-striatis (striis 7), lateribus confuse punctatis, singulo puncto basali, 3 ante medium (suturali majore), 4 in med.o, transverse positis, fuscis. L. 5 lin.

S. Paulo, Ega (Bates). Coxal line present.

## Brachysphænus hexastictus, sp. n.

Ovatus niger, nitidus, antennis basi palpis abdomineque rufis; capite antice impresso, clypeo parce punctato; thorace sat convexo, punctulato, lateribus rotundatis, basi sinuato, punctis perpaucis majoribus; elytris ochraceo-flavis dimidio apicali nigro, singulo maculis 6 nigris, punctato-striatis (striis 7) serieque marginali punctorum; abdomine subtus et metasterno in medio rufis. L.  $4\frac{1}{2}$  lin.

Ega (Bates).

The spots are arranged thus, 3 near the base (the discoidal nearest), I oblique elongate near the suture, 2 transverse (slightly oblique) parallel and the apex black.

Var. discretus.

Structurally identical with the type, but the external basal spot of the elytra is fused with the elongate spot lying under it, the 2 spots in the middle are run together into an oblique transverse fascia, the apical half is reduced to a fourth, a narrow black fascia (abbreviated on either side) being the remainder of the anterior portion; thus, there are 2 basal spots, 3 oblique fasciæ and the apex black.

S. Paulo (Bates).

#### Brachysphœnus cerasinus.\*

Brachysphænus cerasinus, Lac. Erot. 400.

Brazil

Elytra almost impunctate, but the first two striæ are just visible; coxal line visible.

#### Brachysphœnus ramosus.

Brachysphænus - , Lac. Erot. 401.

Cayenne, Para (Bates).

Meso- and meta-sternum thickly punctate in the middle; coxal line visible.

Var. dilaceratus.

The basal dent is abbreviated, and the 2nd fascia is produced beyond the middle of the disc, the 3rd fascia is narrower than in the type.

Columbia.

Var. carmineus.

The 2nd fascia is reduced to a small subquadrate spot, the 3rd is much broader and denticulate.

Ecuador (Buckley).

Var. apicicinctus.

Besides the fasciæ, the whole external margin of the elytra is bordered with red; in one specimen the thorax also is varied with red.

Ecuador (Buckley).

#### Brachysphænus subsanguineus, sp. n.

Oblongo-ovatus, rufo-testaceus, nitidus, clypeo punctato, capite macula nigricante; thorace convexo, punctulato, maculis 2 maximis nigris, linea discoidali margineque rufis; elytris tenuiter punctato-striatis, serie marginali fortiter impressa, margine externo carmineo-cincto; fascia dentata basali (per marginem continuata), fascia obliqua apicem versus (ad apicem per suturam continuata) carmineis; corpore subtus toto rufo-testaceo. L. 4½ lin.

S. Paulo, Ega (Bates).

Var. disjunctus.

Major, fascia basali discreta, thorace punctis 6 nigris.

Santarem.

## Brachysphœnus hebraicus.

Brachysphænus hebraicus, Lac. Erot. 403. Cayenne,

## Brachysphænus nitidulus.

Brachysphænus —, Lac. Erot. 403. Cayenne.

# Brachysphœnus bellulus.

Brachysphænus bellulus, Lac. Erot. 404. Cavenne. Para.

## Brachysphænus bajulus.

Brachysphænus bajulus, Lac. Erot. 413. Brazil.

# Brachysphænus octoguttatus.

Erotylus 8-guttatus, Oliv. Ent. v. 484, T. III. f. 39. Brachysphænus —, Lac. Erot. 412. Erotylus oculatus, Dup. Erot. 37, T. III. f. 73. Brachysphænus —, Lac. Erot. 414. Cayenne.

# Brachysphœnus neophyta.\*

Brachysphænus neophyta, Lac. Erot. 415. Cayenne (Lacordaire).

#### Brachysphœnus flavosignatus.

Erotylus flavosignatus, Dup. Erot. 28, T. 11. f. 49. Brachysphænus —— , Lac. Erot. 352. Brazil.

# Brachysphænus conformis.

Brachysphænus conformis, Lac. Erot. 353.
Brazil, Rio Janeiro.
Differs from B. flavosignatus by the very oblique 2nd fascia.

# Brachysphœnus nigripennis.

Brachysphænus nigripennis, Lac. Erot. 412. Demerara.

#### Brachysphœnus stramineus.\*

Brachysphænus stramineus, Lac. Erot. 415. Columbia.

# Brachysphœnus fulvipennis.\*

Brachysphænus fulvipennis, Er. Arch. f. Nat. XIII. 179. Peru.

# Brachysphœnus salamandra.\*

Brachysphænus salamandra, Er. Arch. f. Nat. XIII. 178. Peru.

# Brachysphœnus pyrrhocephalus.\*

Brachysphænus pyrrhocephalus, Er. Arch. f. Nat. XIII. 178. Peru.

## Brachysphœnus tabidus.\*

Brachysphænus tabidus, Er. Arch. f. Nat. XIII. 179. Peru.

# Brachysphænus grammicus.\*

Brachysphænus grammicus, Er. Arch. f. Nat. XIII. 179. Peru.

## Brachysphœnus amictus.\*

Brachysphænus amictus, Er. Arch. f. Nat. XIII. 178. Peru.

# Brachysphænus luscus.\*

Brachysphænus luscus, Er. Arch. f. Nat. XIII. 178. Peru.

## Brachysphœnus procerus.\*

Brachysphænus procerus, Er. Arch. f. Nat. XIII. 178. Peru.

# Brachysphænus regularis.\*

Brachysphanus regularis, Er. in Schomb. Reise, III. 578 (1848). British Guyana.

# Brachysphœnus proximus.\*

Brachysphænus proximus, Guér. Icon. R. A. Ins 311. Columbia.

# Typocephalus.

Dej. Cat. Ed. 3. 451 (typ. dimidiatus, Oliv.).

Head in the male deeply excavate, vertex generally armed with a spine. Coxal lines present, abbreviated. Prosternum compressed, elevated, emarginate behind, produced into a point in front, sutures abruptly curved.

#### Typocephalus dimidiatus.

Erotylus dimidiatus, Oliv. E. M. vi. 435 (1791). Brachysphænus — , Lac. Erot. 406.

Cayenne, N. Granada, Demerara.

& vertice lamina procumbente antice unidentata armato.

Q vertice plano, vel paulo concavo.

The elytra are almost smooth; in some examples there is a trace of a black fascia across the yellow band.

## Typocephalus cruciatus.

Brachysphænus cruciatus, Lac. Erot. 407.

Cayenne, N. Granada,

& vertice profunde excavato, lateribus elevatis, postice lamina brevi rotundata procumbente, utringue cornu valde elevato supra oculos.

Closely allied to T. dimidiatus.

## Typocephalus interpunctatus, sp. n.

Oblongus, niger, sublevis, fere opacus, elytris flavo-ochraceis, tertia apicali nigra, singulisque punctis tribus transverse positis (in linea postice concava), et macula sub-basali prope suturam, nigris. L. 4-41 lin.

Venezuela.

& capite profunde excavato, postice lamina deflexa truncata, utringue cornubus majoribus armatis.

# Typocephalus vespoides.

T. dimidiato affinis, sed paulo minor, corpore subtus pedibusque rufis, elytrorum quarta basali lutea distinctus. L. 31 lin. Amazons (Bates).

#### Sphenoxus.

Lac. Erot. 376 (typ. Germari, Lac.).

Lacordaire has left this under Brachysphenus, as a sub-genus, but it is very distinct by the pointed rostrum, the elongate thorax with a broad basal punctate fovea, semicircularly emarginate in front; the tarsi with the first joint short, the last joint very long, equal to the rest. Intermediate coxal line very short.

## Sphenoxus Germari.

Brachysphænus Germari, Lac. Erot. 376. Columbia.

#### Eurycardius.

Lac. Erot. 479 (typ. erythropterus, Lac.).

# Eurycardius erythropterus.

Eurycardius erythropterus, Lac. Erot. 480. Cayenne, Brazil.

#### Eurycardius concolor, sp. n.

E. erythroptero similis, sed colore rufo, femoribus apice, tibiis tarsis antennisque nigris. L. 5\(\frac{1}{2}\) lin.

Minas Geraes.

#### Erotylus.

Fab. Syst. Ent. 123 (1775) (typ. giganteus, Fab.).

This genus seems to me somewhat difficult to characterize, as Lacordaire has comprised in it species with the rostrum parallel and coarctate. All the species are of tolerably large size, and have the elytra more or less visibly gemellate punctate-striate.

 A. Rostro quadrangulari, elytris plus minusve regulariter punctato-striatis.

#### Erotylus histrio.

Brazil

Recognizable by the impressed punctures being black on the yellow fasciæ; 1st ventral segment with an impressed pilose dot.

## Erotylus Chevrolatii.

Erotylus Chevrolatii, Lac. Erot. 421.

Brazil, Minas Geraes, Sta. Catharina.

Differs from *E. histrio* by the deep coarse punctures of the elytra, smaller size, etc. The type is an immature specimen with the yellow markings sub-confluent: \$\mathcal{\delta}\$ dotted; abdomen with last segment faintly punctulate.

# Erotylus ægrotus.

Erotylus agrotus, Lac. Erot. 420.

Dryas, Lac. Erot. 424.

Brazil.

Very near E. Chevrolatii, but with the punctuation more obsolete, and the yellow fasciæ filled up with brown instead of black: 3 dotted; abdomen punctulate as in E. Chevrolatii.

E. Dryas is unquestionably only an immature state.

## Erotylus histrionicus.

Erotylus histrionicus, Dup. Erot. 8, T. 1. f. 4.

Brazil.

Differs from *E. histrio* by its narrow boat-like shape; the yellow markings crowd the elytra all over, leaving no decided black fascia. Abdomen punctulate beneath.

## Erotylus Marshami.

Erotulus Marshami, Lac. Erot. 425.

Cavenne.

This is at once distinguished by its black epipleuræ.

3 dotted : abdomen punctulate.

## Erotylus Buquetii.

Erotylus Buquetii, Lac. Erot. 445.

Brazil.

Closely allied to E. Marshami, with black epipleuræ, but without the red apex and shoulders: 1st and 2nd segments of abdomen slightly pilose, former with an impressed dot.

## Erotylus tæniatus.

Erotylus tæniatus, Latr. Humb. Voy. 11. 9, T. XXXI. f. 1.

\_\_\_\_ , Lac. Erot. 428. fulgurator, Lac. Erot. 427.

N. Granada.

E. fulgurator, of which the type is before me, differs only in having the markings less developed, and in being in bad condition.

3 abdomen slightly pilose and punctulate; 1st segment with an impressed dot.

#### Erotylus vinculatus.

Erotylus vinculatus, Lac. Erot. 426.

Bogota (Janson).

Coarsely and sparsely punctate; the strice of the elytra hardly gemellate; the basal band rather straight: allied to E. taniatus, but with all the fasciæ red.

## Erotylus margineguttatus, sp. n.

Ovatus, postice acuminatus, ater, nitidus; elytris fasciis 4 flexuosis (basali e maculis composita) signaturaque apicali luteis, ad marginem (basali excepta) coccineis. L. 8-9 lin.

Amazons, Pebas.

Punctuation very coarse, subgemellate, the fasciæ irregular, basal generally broken up into spots; the red marginal spots not always visible, but then to be seen on the epipleuræ.

& abdomen very faintly punctulate and pilose, 1st segment

with an impressed dot.

## Erotylus marginemaculatus, sp. n.

E. margineguttato simillimus, magis elongatus, angustior, elytris minus profunde et magis seriatim punctatis, fasciis minus flexuosis, basali integra, signatura apicali minore, haud coccineotineta. L. 8—83 lin.

Ecuador (Buckley).

Var. fasciis 2-3 totis, 4 dimidio coccineis,

 $\ensuremath{\mathfrak{F}}$  1st ventral segment with an impressed dot, all the segments punctulate.

## Erotylus Buckleyi, sp. n.

Elongato-ovatus, navicularis, ater, nitidus, parce obsoletius punctatis, punctis subgemellatis; elytris fasciis 3 signaturaque apicali luteis ( $2^a$  fere tota,  $3^a$  ad marginem coccineo-tineta). L.  $7^1_{2}$ — $9^1_{2}$  lin.

Ecuador (Buckley).

The basal fascia is entire, the medial a little broader and evidently consists of the 2nd and 3rd united; it is very distinct by this and the smooth appearance. In one example the medial fascia is obsolete.

3 abdomen smooth, 1st segment with an impressed dot.

#### Erotylus rudepunctatus, sp. n.

Ovatus, ater, minus nitidus, elytris profunde crebreque punctato-striatis, fasciis angustis 3 signaturaque apicali fulvis vel luteis. L. 7 lin.—9 lin.

Amazons, Pebas.

The fascize are well marked, uniform and narrow, the basal forms a humeral spot, the 4th is confused with the apical markings. It is readily recognizable by the punctuation.

3 abdomen punctate, 1st segment with an impressed dot.

#### Erotylus peruvianus, sp. n.

Convexus, ovatus, ater, nitidus, fasciis 4 flexuosis angustis, signaturaque apicali luteis (2—4 coccineo-tinetis, ad suturam luteis). L. 9 lin.

Peru.

It differs from *E. Voeti* by being broader, with much deeper and coarser punctures, the bands are more flexuose, the apical marks yellow. Varieties occur with the 2nd fascia obsolete, or the basal reduced to dots.

3 abdomen punctulate, 1st segment with an impressed dot.

## Erotylus Voeti.

Erotylus Voeti, Lac. Erot. 429.

Moxos, Bolivia.

Distinct by its ovate narrow form, and close, comparatively fine, punctuation.

## Erotylus loratus.\*

Erotylus loratus, Er. Arch. f. Nat. XIII. 176 (1848). Peru.

## Erotylus Guerinii.

Erotylus Guerinii, Demay, R. Z. 1838, 23.

———————————, Lac. Erot. 430.

Guarayos, Bolivia,

Resembles *E. Voeti* in form, more coarsely punctate,  $\mathcal{S}$  1st ventral segment slightly rugose and pilose.

## Erotylus hexagrammus.

Erotylus hexagrammus, Lac. Erot. 430. Bolivia.

Narrower and smaller than E. Voeti, with the fasciæ more regular and not approximate.

## Erotylus incomparabilis.

Amazons (Bates).

This is the most variable species of the genus.

A. Basal fascia consisting of 3 yellow dots near the scutellum, and a large humeral patch, 2—4 flexuous, narrow, 5—6 confused together (2—3 generally approximate).

B. Basal fascia reduced to 3 or 4 yellow dots, 2—3 united in a broad band, or 2—5 confused inextricably. (This is the described formula to be about the second seco

form and the most abundant).

C. Larger, basal fascia almost entire, 2—3 united in a band narrowed at the suture, 4—5 united, near the apex.

D. Black, with 2 or 3 yellow dots at the base.

# Erotylus Nautæ, sp. n.

This is difficult to separate from *E. incomparabilis*, but it is rather more strongly and closely punctate, the basal fascia is red, 2—3 generally united, the others fragmentary, nearly black varieties are apparently common. L. 9 lin.

Nauta (Bates).

#### Erotylus scenicus.\*

Erotylus scenicus, Er. Arch. f. Nat. XIII. 176. Peru.

## Erotylus picturatus, sp. n.

Oblongo-ovatus, niger, nitidus, fasciis 4 (basali lutea, 2—3 externe junctis coccineis, 4 apicali coccinea, fracta); elytris fortiter, dorso gemellato, punctatis. L.  $5\frac{1}{2}$  lin.

Ecuador (Buckley).

Very distinct by its small size; the epipleuræ are red in the middle, and not yellow at the base.

#### Erotylus variegatus.

Cayenne.

3 1st ventral segment with a pilose impressed dot.

#### Erotylus pretiosus.

Erotylus pretiosus, Perty, Delect. Anim. Art. 111, T. XXII. f. 9.

Rio Negro, R. Essiquibo, Amazons, Carracas.

## Erotylus giganteus.

Coccinella gigantea, Linn. Syst. Nat. Ed. 10. 368 (1758). Erotylus ——, Lac. Erot. 434. Cayenne.

# Erotylus sexfasciatus.

Erotylus 6-fasciatus, Fab. Ent. Syst. п. 36 (1792).
—— , Lac. Erot. 426,

Para, Maranham.

I am quite at a loss to understand how Lacordaire overlooked the affinity of this with *E. giganteus*, of which it is hardly more than a variety with the fulvous spots coalescing into bands.

#### Erotylus incertus.

Erotylus incertus, Lac. Erot. 435.

Cayenne.

Very near E. giganteus, but smaller and less convex. I am very sceptical as to the validity of this species.

## Erotylus varians, sp. n.

Ovatus, subangustatus, ater, nitidus, modice punctatus : elvtris fasciis latis 3 rufo-testaceis (1 subbasali, 1 medio, 1 apicali triangulari). L. 8-9 lin.

Amazons (Bates), Ecuador (Buckley), Pebas.

Var. fasciis 1-2 decompositis.

# Erotylus cingulatus, sp. n.

Ovatus, valde convexus, ater, subnitidus, thorace fovea basali fortiter punctata; elytris crebre vix gemellato-punctatis, cingulis 3 signaturaque apicali rufo-testaceis (1 prope basin, 1 ante medium, 1 paulo infra medium, omnibus latitudine æquali); epipleuris testaceis, basi maculaque media nigris. L. 9\frac{1}{2} lin.

Amazons (Bates).

& segmento primo ventrali puncto piligero. Very distinct by its system of coloration.

# Erotylus ecuadorica, sp. n.

Ovatus, convexus, angustatus, niger, nitidus; elytris distincte subgemellato-punctatus, fascia basali interrupta, altera in medio, maculaque subapicali fulvis. L. 51-6 lin.

Ecuador (Buckley).

& segmento 1º pilis paucis in disco, margine in medio tuberculato.

This has the form of E. Olivieri; the fascize are composed of large spots, sometimes partially separated: antennæ short.

#### Erotylus Olivieri.

Erotylus Olivieri, Lac. Erot. 463.

Bolivia, Peru (Erichson).

& segmento 1º disco puncto pilifero.

This species is very distinct by the punctures of the elytra being black on the orange fasciæ, as in the 2nd group. The prosternum is very convex, the ventral process margined.

## Erotylus papulosus.

Erotylus papulosus, Lac. Erot. 436.

Cavenne.

Distinct by the black epipleuræ.

## Erotylus pustulatus.

Erotylus pustulatus, Dup. Erot. 10, T. 1. f. 8. , Lac. Erot. 437.

Cayenne.

#### Erotylus connectens, sp. n.

E. pustulato affinis, sed thorace æquali, elytris obsolete sed regulariter gemellato-punctatis, epipleuris totis rufis, supra maculis rubris sub-confluentibus. L. 6 lin.

Brazil.

♂ segmento 1º puncto piligero.

In E. pustulatus there is a central black band free from spots, which is not the case here.

## Erotylus intermedius, sp. n.

E. pustulato affinis, sed magis elongatus, maculis plurimis testaceis, æqualiter sparsis, seriatim positis. L.  $7-7\frac{1}{2}$  lin.

N. Granada.

The more abundant, equally scattered spots give it a very different appearance.

#### Erotylus leopardus.

Erotylus leopardus, Lac. Erot. 442.

Mexico.

The orange margin of the elytra is characteristic.

3 segmento 1mo puncto pilifero.

# Erotylus confluens, sp. n.

E. leopardo affinis, sed magis opacus, minor, maculisque elytrorum confluentibus. L.  $5\frac{1}{2}$  lin.

Mexico, Guatemala.

# Erotylus dichromostigma.

Erotylus dichromostigma, Guér. R. Z. 1841, 115.

Sta. Cruz de la Sierra, Bolivia.

Strix of elytra regularly gemellate; thorax punctate; ventral process margined.

3 segmento 1mo ventrali disco fovea punctata piligera.

#### Erotylus multiguttatus.

Erotylus multiguttatus, Lac. Erot. 441.

Bolivia.

Resembles E. connectens, but the spots are much smaller.

# Erotylus jaspideus.\*

Erotylus jaspideus, Er. Arch. f. Nat. XIII. 176. Peru.

## Erotylus Nicaraguæ.

Erotylus Nicaraguæ, Crotch, Cist. Ent. 148. Nicaragua (Janson).

#### Erotylus herpestes.

Erotylus herpestes, Lac. Erot. 445.

Columbia.

Epipleuræ yellow, base black.

¿ segmento 1mo ventrali puncto piligero.

## Erotylus onagga.

Erotylus onagga, Lac. Erot. 427.

Columbia.

The elongate shape, the opaque, hardly impressed thorax, and the regularly fasciate elytra, at once separate this species.

## Erotylus scaphidomorphoides, sp. n.

Elongato-ovatus, convexus, nitidus; thorace opaco, punctulato; elytris parce punctatis, dorso sub-gemellatis, fasciis 2 (1 basali, 1 in medio), ad suturam interruptis, maculaque subapicali læte aurantiacis. L.  $7\frac{1}{2}$ —8 lin.

Amazons (Bates).

This bears a curious resemblance to Scaphidomorphus Boscii. The ventral process is very short and margined.

#### Erotylus bifasciatus, sp. n.

Elongatus, convexus, sub-gibbosus, niger, nitidus, thorace sub-transverso, lateribus rectis, angulis anticis porrectis, nitido; elytris gemellato-punctato-striatis, striis valde approximatis, fasciis 2 dentatis sat latis (1 ante, 1 infra medium) testaceis; sutura anguste nigra. L.  $8\frac{1}{2}$  lin.

Ecuador (Buckley).

3 segmento 1º puncto piligero.

Very distinct by its shape.

# Erotylus hieroglyphicus, sp. n.

Elongatus, antice angustior, niger, nitidus; thorace parvo elytris distincte angustiore lateribus rectis; elytris ochraceis (vel fulvis), fasciis 7 irregularibus nigris (1°, 3°, 5° communibus, ad suturam dilatatis, reliquis interruptis); epipleuris ochraceis. L. 8½ lin.

Venezuela (Sallé).

Punctuation obsolete, with traces of gemellated strice closely approximated.

### Erotylus elongatulus, sp. n.

Elongatus, postice dilatatus, ater, subnitidus; thorace breviore, angusto, obsolete punctato; elytris crebre punctulatis, obsoletissime gemellato-striatis; lineis transversis 4 (per paria approximatis) annuloque apicali rufis; lineis basalibus oblique sitis, ad suturam junctis. L. 13 lin.

Patria ignota.

### Erotylus imperfectus, sp. n.

Ovatus, niger, nitidus; elytris dorso gemellato-, lateribus vage punctatis, maculis subconfluentibus læte rufo-flavis (basin versus raris, infra medium fascia irregulari formantibus), margine epipleurisque (humeris exceptis) rufo-flavis. L. 8 lin.

Ecuador (Buckley).

The unique specimen has unfortunately lost its head and thorax.

### Erotvlus subreticulatus.

Erotylus subreticulatus, Guér. R. Z. 1841, 115.

, Lac. Erot. 443. Bolivia, Amazons (Bates), Peru (Erichson). Easily recognizable by its punctuation. & segmento 1mo ventrali fovea piligera.

### Erotylus melanostictus, sp. n.

Ovatus, niger, nitidus, elytris læte flavis basi anguste apiceque nigris, punctis profundis nigris sparsis impressis; epipleuris flavis basi apiceque nigris. L. 8\frac{1}{2} lin.

Amazons (Bates), Panama (Sheppard).

This has the irregular punctuation of the 2nd group and the outline of a Barytopus, but is evidently allied to E. subreticulatus.

### Erotylus gemmatus.

Erotylus gemmatus, Fab. Ent. Syst. 2, 38. , Lac. Erot. 437.

Cavenne.

Distinct by its form which is rather pyramidal, being flattened in front and obliquely so at the sides. I can detect no sexual difference in the specimens before me.

### Erotylus cassidoides, sp. n.

Cyaneus, nitidus, breviter ovatus, postice acuminatus, lateribus late explanatis; capite biimpresso, punctato; thorace inæquali, punctato, brevi; elytris fortiter punctatis, dorso subgemellato-

striatis, lateribus opacis, explanatis, vitta obliqua magna rufa; epipleuris macula media rufa, abdomine rufo, segmentis medio punctoque laterali nigris. L. 61-81 lin.

Amazons (Bates).

Allied to E. gemmatus by its pyramidal form, and very distinct from all the other species. I can discover no sexual characters in the series of examples which I have examined. The abdomen is sometimes entirely black. The punctures on the elytra are black on the red vitta

## Erotylus geminatus, sp. n.

Subovatus, niger, nitidus, elytris profunde punctatis dorso gemellato-striatis, striis valde approximatis, margine maculis vage sparsis epipleurisque rubris. L. 6\frac{1}{2} lin.

Amazons (Bates).

Closely allied to E. pustulatus in appearance, but with a decidedly pyramidal form, though less so than in E. gemmatus, from which it differs by the regular dorsal striæ.

## Erotylus helopioides.

Erotylus helopioides, Dup. Erot. 2, T. 1. f. 11. , Lac. Erot. 447.

Lacordairei (Dej.), Lac. Erot. 446.

Brazil.

The impunctate elytra at once distinguish this species. I have no doubt that E. helopioides and E. Lacordairei are forms of one and the same species. The former appears to be of very rare occurrence; I have seen but a single bad example of it.

& segmento 1mo disco puncto piligero.

Ventral process margined.

### Erotvlus Reichei.

Zonarius Reichei, Guér. R. Z. 1841, 117.

Erotylus — , Lac. Erot. 431.

Bolivia, Guarayos.

Elytra with fine punctures intermingled; thorax semicircularly emarginate in front.

### Erotylus toxophorus.

Erotylus toxophorus, Lac. Erot. 432.

Bolivia, Amazons.

Thorax punctate; & first segment with an impressed dot.

# Erotylus toxographus.\*

Erotylus toxographus, Er. Arch. f. Nat. XIII. 176. Peru.

### Erotylus Theodori.

Erotylus unifasciatus||, Lac. Erot. 433 (1842); nec Fab. Ent. Syst. Supp. 101 (1798).

Columbia.

# Erotylus rufipes, sp. n.

Ovatus, ater, nitidus, ore femoribusque rubris; thorace brevi, punctulato, interdum obscure rufo-limbato; elytris nigris, dorso gemellato-striatis, maculis nigris subtessellatis; epipleuris nigris. L. 64 lin.

Bogota (Janson).

Very like E. Nicaraguæ, but with the femora red; the thorax is short with the sides rounded, while in E. Nicaraguæ they are straight.

# Erotylus maculiventris.

Erotylus maculiventris, Lac. Erot. 444. Columbia, Ecuador (Buckley), Pebas, Peru (Erichson). S segmento 1mo ventrali fovea piligera.

### Erotylus nigrotibialis, sp. n.

E. maculiventri simillimus sed tibiis totis nigris; elytrorum que margine rubro, maculis elytrorum minus quadratis, etc. L. 5—8½ lin.

Amazons (Bates).

# Erotylus flavangulus, sp. n.

E. maculiventri similis, sed brevior, magis ovatus, margine basi et infra medium flavo, elytris nigris maculis irregularibus rufis, antice et postice sitis, medio nigro. L. 6—8 lin.

Amazons (Bates).

The markings are very near those of E. pustulatus.

B. Rostrum basi coarctato; elytris irregulariter punctatis, punctis nigris.

### Erotylus parcepunctatus, sp. n.

Breviter ovatus, postice acuminatus, niger, nitidus, thorace subopaco, inæquali, obsolete punctulato, basi utrinque fovea punctata; elytris fasciis 2 latis nigro-irroratis denticulatis (1 prope basim, 1 paulo infra medium) ochraceis; epipleuris macula basali ochracea. L.  $7\frac{1}{2}$ —8 lin.

3 puncto ventrali piligero.

Ecuador (Buckley), N. Peru (Bates).

This reproduces the characters of the first section in every respect except the rostrum; the punctures are visible on the fasciæ as in E. Olivieri.

# Erotylus decipiens, sp. n.

Elongato-ovatus, postice dilatatus, ater, sub-nitidus, thorace sericeo, vix punctulato, basi fovea punctata; elytris nitidis, fasciis 2 ochraceis vel carneis nigro-irroratis, marginem haud attingentibus; 1 basali lata, macula juxtascutellari includente, 1 infra medium angustiore subobliqua; epipleuris nigris. L. 9 lin.

Ecuador (Buckley).

This recalls E. bifusciatus in form and colour, but the rostrum is very decidedly narrowed at the base.

# Erotylus ustulatus.\*

Erotylus ustulatus, Er. Arch. f. Nat. XIII. 176. Peru.

# Erotylus aulicus.\*

Erotylus aulicus, Lac. Erot. 438.

Chronno

I have seen the type; it is very like E. variegatus, but with an additional apical fascia.

### Erotylus Latreillii.

Erotylus Latreillei, Lac. Erot. 461.

Bolivia.

Thorax with the sides broadly rounded, rather deeply emarginate in front, posterior angles produced, acute, base not margined; elytra evidently punctulate.

¿ puncto ventrali piligero.

# Erotylus pardalis.\*

Erotylus pardalis, Er. in Schomb. Reise Brit. Guy. 111. 578. British Guiana.

# Erotylus Cornaliæ.

Erotylus Cornaliæ, Guér. Verh. Z-b. Ver. Wien, v. 611 (1855). Napo,

### Erotylus Ghilianii.\*

Erotylus Ghilianii, Guér. Verh. z.-b. Ver. Wien, v. 611. Napo.

### Cypherotylus.

Crotch, Trans. Amer. Ent. Soc. 1873, 358.—Cist. Ent. 148. (typ. gibbosus, Linn.).

### Cypherotylus sphacelatus.

Erotylus sphacelatus, Fab. Syst. El. 11, 4 (1801).

Lac. Erot. 450.

Brazil.

Easily recognizable by the large opaque black fascia.

# Cypherotylus Jacquieri.

Erotylus Jacquieri, Lac. Erot. 451.

Cayenne

The anterior angles of the thorax are acute, produced, and divaricate, the base is margined; the tarsi are broadly dilated.

d segmento 5 to ventrali emarginato.

# Cypherotylus maximus, sp. n.

Ω elongatus, ater, nitidus, thorace angulis anticis rotundatis, lateribus rectis, basi marginatis; elytris acute gibbosis, ochraceis, punctis maximis sæpe confluentibus nigris, apice nigro. L. 13— 14 lin.

Upper Amazons.

### Cypherotylus impunctatus, sp. n.

Niger, nitidus, elongatus, thorace basi marginato; elytris ochraceis, basi nigro-marginato, punctis perpaucis nigrisim pressis, fascia media, apiceque lato nigris. L.  $11-13\frac{1}{9}$  lin.

Amazons (Bates).

& thorace angulis anticis productis, acutis, segmento 5° ventrali acute triangulariter exciso.

thorace angulis acutis truncatis.

The male of this species appears to want the piliferous puncture.

# Cypherotylus camelus.

Bolivia, Amazons (Bates).

Var. fascia media integra.

The solitary male I have seen has not got the small piliferous dot characteristic of the genus.

# Cypherotylus gibbosus.

Chrysomela gibbosa, Linn. Cent. Ins. 10 (1763). Erotylus gibbosus, Lac. Erot. 453.

Cavenne.

& thorace lateribus incrassatis.

### Cypherotylus Debauvei.

Erotylus Debauvei, Demay, R. Z. 1838, 23.

New Granada, Cavenne, Brazil.

This differs from C. gibbosus by the colour of the legs, and is more gibbous.

# Cypherotylus armillatus.\*

Erotylus armillatus, Er. Arch. f. Nat. XIII. 176. Peru.

# Cypherotylus dromedarius.

Erotylus dromedarius, Lac. Erot. 455. Cypherotylus —, Crotch, Cist. Ent. 148. Cayenne, Nicaragua (Janson). Thorax margined at the base, obsoletely punctulate.

# Cypherotylus annulatus.

Erotylus annulatus, Lac. Erot. 456.

Brazil.

Closely allied to C. dromedarius, but larger and more acutely gibbous.

# Cypherotylus miliaris.

Erotylus miliaris, Lac. Erot. 458.
Bolivia, N. Granada, Amazons (Bates).
The thorax is deeply bisinuate at the base.

thoracis lateribus antice incrassatis.

# Cypherotylus elevatus.

Cayenne, Bogota.

Thorax very short, posterior angles rounded. A sine puncto ventrali.

### Cypherotylus annulipes.

Erotylus annulipes, Guér. R. Z. 1841, 115.

\_\_\_\_\_ , Lac. Erot. 461.

Bolivia.

The femora are narrowly circled with red; elytra evidently punctulate.

# Cypherotylus apiatus.

Erotylus apiatus, Lac. Erot. 462.

— foraminosus, Lac. Erot. 463.
Brazil.

Thorax margined at the base; elytra not visibly punctate. E. foraminosus is only a variety with black thorax.

3 segmento 1 mo ventrali fovea punctata.

# Cypherotylus æneoniger, sp. n.

Ovatus, niger, sub-convexus, thorace æneo-nigro, punctulato, basi marginato, utrinque sinuato; lateribus rotundatis, reflexis; elytris ochraceis, subtilissime punctulatis, punctis nigris sparsim impressis, fascia media interrupta (macula marginali suturalique). L. 5—5½ lin.

Ecuador (Buckley).

# Cypherotylus Goryi.

Erotylus Goryi, Guér. R. Z. 1841, 116.

— , Lac. Erot. 464. Columbia, Bogota.

Thorax emarginate behind, elytra not visibly punctulate.

3 puncto ventrali piligero.

# Cypherotylus Jansoni.

Cypherotylus Jansoni, Crotch, Cist. Ent. 149. Nicaragua (Janson).

# Cypherotylus vicinus.

Erotylus vicinus, Guér. R. Z. 1841, 116.

\_\_\_\_\_\_\_, Lac. Erot. 465. \_\_\_\_\_\_ melanostigma, Lac. Erot. 466.

Mexico, Guatemala.

Very near C. Goryi.

3 puncto ventrali piligero.

C. melanostigma is based on a discoloured specimen.

# Cypherotylus Guatemalæ, sp. n.

C. vicino proximus, convexior, thoracis lateribus anguste rufocinctis; elytris punctis nigris multo majoribus.

Guatemala.

# Cypherotylus stillatus.

Erotylus stillatus, Kirsch, B. E. Z. IX. 100 (1865).

Bogota, Peru.

The male has the femora dilated, and the last ventral segment sinuate.

# Cypherotylus impressopunctatus.

Cypherotylus impressopunctatus, Crotch, Cist. Ent. 148. Nicaragua (Janson).

### Cypherotylus variolosus, sp. n.

E. stillato affinis, sed brevior, magis convexus, nitidus, elytris punctis variolosis apiceque nigris. L. 8—9 lin.

Ecuador (Buckley).

♂ puncto ventrali piligero.

# Cypherotylus apicalis, sp. n.

Ovatus, niger, nitidus, thorace nitido, æquali, basi marginato ; elytris apice punctisque impressis nigris. L. 6-7 lin.

N. Granada.

Allied to *E. variolosus*, but the impressed dots are much finer. **3** puncto ventrali piligero.

### Cypherotylus Boisduvalii.

Erotylus Boisduvalii, Chev. Col. Mex. 11. 4.

\_\_\_\_ , Lac. Erot. 466.

Cypherotylus — , Crotch, Trans. Amer. Ent. Soc. 1873, 358. Erotylus californicus, Lac. Erot. 447.

Mexico, California.

The thorax is margined at the base.

3 puncto ventrali piligero.

E. californicus differs only in having the punctures more numerous.

# Cypherotylus sticticus.\*

Erotylus sticticus, Er. Arch. f. Nat. XIII. 176. Peru.

# Micrerotylus.

(g. n., typ. Gronovii, Herbst).

These insects were ranked by Lacordaire under *Barytopus*, with which they agree in the geminate striation of the elytra, but in the structure of the thorax and margining of the elytra they are much nearer *Erotylus*. The males appear not to present any external distinctive characters.

### Micrerotylus Gronovii.

Chrysomela Gronovii, Herbst, Füssl. Arch. 10. 52, T. XXIII. f. 4. Erotylus alternans, Oliv. E. M. VI. 434. Brachysphænus —, Lac. Erot. 579. Cayenne.

# Micrerotylus dubitabilis, sp. n.

B. Gronovii simillimus, macula humerali carente, macula apicali majore, fascia media utrinque abbreviata, punctis 3 prope basin distinctus. L.  $5-5\frac{1}{2}$  lin.

Amazons (Bates).

### Micrerotylus heterogrammus.

Brachysphænus heterogrammus, Lac. Erot. 382. Sta. Cruz de la Sierra, Bolivia.

### Micrerotylus lunulatus.

Erotylus lunulatus, Oliv. E. M. vi. 435 (1791). Brachysphænus luyubris, Lac. Erot. 383. Columbia, Cayenne (Olivier), N. Granada.

Specimens from the latter locality do not entirely agree; the basal fascia is hardly reniform, and the sub-apical is denticulate, but the three examples which I have seen vary a good deal inter se.

### Micrerotylus hesitans, sp. n.

B. Gronovii simillimus, sed minor, macula humerali, scutellari, punctisque 3 basilaribus nigris, fascia sub-apicali ochracea angustiore, denticulata, recta. L.  $4\frac{1}{2}$  lin.

Ecuador (Buckley), Pebas (Bates).

# Micrerotylus funerellus, sp. n.

Ovatus, niger, nitidus, thorace medio fortius canaliculato, basi fovea punctato; elytris dimidio basali ochraceo, macula scutellari, punctisque 3 nigris. L.  $6\frac{1}{4}$  lin.

N. Granada (Janson).

#### Zonarius.

(Hope) Lac. Erot. 468 (typ. xanthomelas, Lac.).

A. Abdomine nigro, antennis clava 3-articulata.

#### Zonarius indicus.

Chrysomela indica, Herbst, Füssl. Arch. 52, T. XXIII. f. 5 (1784). Zonarius indicus, Lac. Erot. 471.

---- xanthomelas, Lac. Erot. 470.

Cayenne.

of puncto ventrali piligero.

In Z. indicus the basal fascia is entire; in Z. xanthomelas it is broken up into three spots.

# Zonarius nigrotibialis.\*

Erotylus nigrotibialis, Demay, R. Z. 1835, 24.

Zonarius ———, Lac. Erot. 472.

Bolivia.

B. Abdomine testaceo, antennis clava 4-articulata. Elytris gemellato-striatis. Thorace nigro.

#### Zonarius cacicus.

Zonarius cacicus, Lac. Erot. 474. Mexico, Orizaba, Yucatan. & puncto ventrali piligero.

### Zonarius militaris.

Erotylus militaris, Germ. Ins. Sp. Nov. 611.
Zonarius — , Lac. Erot. 475.
Brazil, Minas Geraes.

\$\delta\$ puncto ventrali piligero.

## Zonarius peregrinus.

Zonarius peregrinus, Lac. Erot. 476. Brazil, Minas Geraes.

#### Zonarius trizonatus.\*

Erotylus trizonatus, Germ. Ins. Sp. Nov. 611. Zonarius — , Lac. Erot. 479.

Brazil (Germar).

This appears to differ from Z. peregrinus only by the fact that neither of the fasciæ reach the margin.

### Zonarius nigrotæniatus.

Zonarius nigrotæniatus, Lac. Erot. 477. Columbia.

### Zonarius hybridus.

Erotylus hybridus, Er. Arch. f. Nat. XIII. 177. Ecuador (Buckley), Peru (Erichson). S puncto ventrali piligero.

C. Elytris gemellato-striatis, abdomine, thoraceque antice testaceis.

#### Zonarius zebra.

Erotylus zebra, Fab. Mant. Ins. 92. Zonarius — , Lac. Erot. 478. Columbia.

In this species and its allies I think the males have no pilose dot on the first abdominal segment.

#### Zonarius Jansoni.

Zonarius Jansoni, Crotch, Cist. Ent. 149. Nicaragua (Janson).

### Zonarius quadrifasciatus, sp. n.

Z. zebræ valde affinis, sed elytris fasciis nigris angustioribus, margine externo inter fasciis, epipleurisque testaceis, intervallis paulo minus fortiter punctatis. L. 3½—4 lin.

Mexico.

### Zonarius Guatemalæ, sp. n.

Z. zebræ iterum affinis, sed minor, thorace antice flavo limbato, angulis triangulariter flavis; elytris fasciis dilatatis, antica margine haud attingente, intervallis parcissime punctatis. L. 4 lin.

Guatemala.

### Zonarius erythrogonus, sp. n.

Ovatus, niger subtus testaceus, antennis pedibus episternisque nigris; capite testaceo vertice nigro; thorace angulis anticis macula quadrata, punctoque discoidali testaceis, obsolete punctato basi truncato; elytris maculis 3 flavis, 1 basali, 1 transversa paulo ante medium, 1 subrotunda apicem versus, epipleuris dimidio basali flavo. L.  $4\frac{1}{2}$  lin.

Amazons (Bates).

### Zonarius fractus, sp. n.

Z. zebræ affinis, sed paulo major, elytris singulis maculis 5 nigris; 2 in tertia basali (externa minore, interna magna obliqua), 2 pone medium (1 transversa, margine vix attingente, 1 elongata suturali), 1 triangulari apicali et epipleuris albidis, apice et puncto pone medium nigris. L. 6 lin.

Bogota (Janson).

### Zonarius convexiusculus, sp. n.

Ovatus, convexus, niger, capite thorace lateribus corporeque subtus rufis; elytris flavis singulo maculis 2 sub-basalibus fere junctis, fascia magna communi paulo pone medium, maculaque subapicali nigris. L.  $4\frac{1}{4}$  lin.

Upper Amazons.

In this species the yellow is reduced to a narrow border at the base and apex and between the fasciæ; the interstices are coarsely but very sparingly punctured.

#### D. Elytris rugosis, abdomine testaceo.

### Zonarius cinctus.

Erotylus cinctus, Hbst. Natursyst. Käf. vIII. 372, T. CXXXVII. f. 11.

--- discoideus, † Oliv. Ent. v. 482, T. 3, f. 33.

Zonarius — , Lac. Erot. 473.

Cayenne, Amazons (Bates).

One of my specimens has the elytra with a narrow obsolete yellow band across the centre.

Epipleuræ of the elytra yellow.

of puncto ventrali piligero.

### Zonarius convexus, sp. n.

Z. cincto affinis, sed brevior, magis convexus, thorace rufo, elytris nigris, angulo humerali apiceque tantum rufescentibus, epipleuris nigris basi testaceo. L.  $3\frac{1}{2}$ —4 lin.

Amazons (Bates).

The thorax sometimes has darker markings, and the elytra have a white discoidal spot near the suture in the middle, and an apical transverse vitta, also white.

# Zonarius rugi-punctatus, sp. n.

Niger, subdepressus, rugoso-punctatus, capite antice rufescente; elytris macula humerali, fascia communi media utrinque abbre-

viata, maculaque triangulari apicali flavis, epipleuris basi flavis; abdomine testaceo. L.  $4\frac{1}{4}$  lin.

Ecuador (Buckley).

& puncto ventrali piligero.

### Zonarius Buckleyi, sp. n.

Z. rugi-punctato affinis, capite rufescente, elytris albidis nigromarginatis macula quadrata basali communi (lineola parva utrinque juxta-scutellari flava includente), punctis 2 (interiore majore) inter maculam et marginem exteriorem; macula triangulari in margine externo, punctisque 2 inter eam et suturam, maculaque parva apicali nigris; epipleuris basi albidis. L. 5 lin.

Ecuador (Buckley).

This may be the same as the last, with the fascia broken up into dots.

### Scaphidomorphus.

Hope, R. Z. 1841, 11 (typ. 5-punctatus, Linn.).

# Scaphidomorphus quinque-punctatus.

Chrysomela 5-punctata, Linn. S. N. 1. 2, 586. Scaphidomorphus 5-punctatus, Lac. Erot. 483.

Boscii, Guér. R. Z. 1841, 117.

— — — , Lac. Erot. 482. Cayenne, Amazons (Bates), Pebas, Columbia, Bogota.

Prosternum largely produced between the coxæ; deeply emarginate.

S. Boscii is more obsoletely punctate, with the two pairs of spots confluent.

### Scaphidomorphus notatus.

Erotylus notatus, Fab. Ent. Syst. 11. 37.

Scaphidomorphus — , Lac. Erot. 484. Amazons (Bates), Cayenne, Bolivia,

Prosternum compressed between the coxæ, emarginate.

# Scaphidomorphus impluviatus.\*

Scaphidomorphus impluviatus, Lac. Erot. 485. Columbia.

This seems hardly to differ from S. notatus, except that the elytral band is described as "latissima, punctis nigris sæpe confluentibus crebre adspersa."

# Scaphidomorphus bitæniatus.

Scaphidomorphus bitæniatus, Lac. Erot. 486. Bolivia.

### Scaphidomorphus Herbstii.

Chiquitos, Bolivia, Amazons (Bates).

Differs from S. biteniatus by the pale epipleuræ. The bands vary but are never denticulate as in S. biteniatus.

### Scaphidomorphus Duponchelii.

Erotylus Duponchelii, Chev. Col. Mex. 11, 4, Scaphidomorphus — , Lac. Erot. 488.

Mexico.

Var. thorace nigro, lateribus anguste nigris, elytris macula apicali obsoleta.

### Scaphidomorphus; xanthomelas.

Scaphidomorphus xanthomelas, Crotch, Cist. Ent. 150. Nicaragua (Janson).

# Scaphidomorphus undatus.

Cavenne, Amazons (Bates), Columbia.

This species is perhaps the most variable of the group; the only constant characters I find beyond the smooth surface and finely punctate-striate elytra, are the black dot on the vertex, the testaceous under-side, with a small black spot on the prosternum behind the coxe under the femora, and the more or less black tibie. I have separated the following forms:

A. undatus. Thorace puncto antico et postico, uncoque utrinque nigris; elytris basi maculis 3, fascia media, alteraque pone medium undatis nigris, apice suffuso, tibiis basi nigris. L. 5 lin.

Var. The hook on the thorax reduced to a point, the basal dots of the elytra forming a waved fascia, the apical suffusion extending to the 2nd fascia.

B. prœustus. Thorace antice punctis 3, postice punctis 3 quadratis magis remotis, nigris; elytris fascia media in maculis 2 quadratis divisa, fascia subapicali apice suffusa; pedibus pallidis. L. 5 lin.

Var. Fascia media integra.

C. zigena. Thorace antice punctis, linea discoidali abbreviata ante scutellum, unco utrinque nigris; elytris punctis 3 sub-basilaribus, fascia media (ad suturam interrupta), fascia subapicali denticulata, apiceque rufo-fulvis, nigro-cinetis, tibiis basi nigris. L. 5 lin.

The subapical yellow fascia consists of 2 rounded yellow spots. Varieties occur in which the thoracic hook is broken into 2 spots, the basal fascia entire, the medial broken up, the markings nigropiceous, instead of being merely edged with black, etc.

D. atroflavus. Luteus, nigro-signatus, thorace punctis 2 quadratis anticis, 1 utrinque discoidali, 3 basalibus quadratis; elytris maculis 3 sub-basalibus, fasciis 2 integris apiceque nigris; tibiis basi femoribusque extus nigris. L. 41 lin.

Varieties occur with the side-marks of the thorax united, or the subapical yellow fascia on the elytra nearly obsolete, also with the distance between the 2nd and 3rd fasciæ greatly increased.

E. interruptus. Luteus, thorace punctis 4 anticis, 3 basalibus subquadratis; elytris basi tenue flavo-marginato fasciaque pone medium flava; tibiis basi femoribusque extus nigris. L. 4 lin.

The anterior dots on the thorax appear to be placed almost in a transverse line.

- F. deficiens. Thorace unco laterali, punctisque 3 nigris; elytris linea flava transversa in tertia basali ad scutellum per suturam excurrente, fasciaque flava irregulari pone medium; tibiis basi femoribusque extus nigris. L. 4 lin.
- G. thoracicus. Thorace nigro, margine antico et laterali testaceo; elytris nigris, fascia prope basin ad scutellum oblique curvata, altera pone medium sat recta, testaceis; pedibus ut in E et F. L. 4 lin.
- H. inchoatus. Thorace punctis 2 anticis, et 2 posticis quadratis, vittaque laterali utrinque nigris; elytris nigris fascia basali punctis 2 nigris includente, alteraque angusta pone medium flavis; tibiis basi nigris.

The basal fascia varies much in extent; the principal change is in the decomposition of the central basal spot of the thorax.

L basi-signatus. Fulvus vertice punctis 2 nigris, thorace antice punctis 2, basi punctis 4 nigris; elytris punctis 3 sub-basalibus, fascia media (sepe interrupta) tertiaque apicali nigris; geniculis nigris. L. 3<sup>3</sup>/<sub>4</sub> lin.

Venezuela.

This is more like a separate species than any of the others. The lateral lines of the thorax are reduced to basal points, but in one specimen, the basal half is obsolete, thus leaving six points arranged in a circle.

### Scaphidomorphus partitus, sp. n.

Oblongus, antice angustatus, flavo-testaceus, antennis tibiarum basi, punctoque prosternali nigris; vertice nigro-maculato; thorace punctis 2 anticis, 4 basalibus nigris; scutello nigro; elytris nigris tertia basali flava, punctis 2 basalibus, 4 in serie transversa pone basin nigris; epipleuris basi flavis. L. 2 lin.

Ecuador (Buckley).

New Granada.

Differs from any variety of S. undatus by its oblong form.

### Scaphidomorphus chamæleo.

Scaphidomorphus chamæleo, Lac. Erot. 489. Columbia, Bolivia.

# Scaphidomorphus opalizans.\*

Scaphidomorphus opalizans, Lac. Erot. 493. Cayenne.

### Scaphidomorphus disputabilis, sp. n.

S. opalizanti proximus, sed pedibus totis pallidis striisque septem elytrorum distinctus videtur. L. 4 lin.

Amazons (Bates).

# Scaphidomorphus maculiforus, sp. n.

Testaceus; elytris punctato-striatis, ochraceis, punctis quadratis basin 4 transverse positis (3º ad basin approximato); 5 in circulo pone medium positis (interiore majore, caudato) nigris. L. 3\frac{1}{2} lin.

Amazons (Bates).

# Scaphidomorphus pustuliforus, sp. n.

Rufo-testaceus; elytris subtiliter punctato-striatis, flavo-testaceis; margine rufo-testaceo, singulis maculis 7 nigris (4 prope marginem, 2 prope suturam, 1 minore in medio). L. 3-41 lin.

Amazons (Bates).

### Scaphidomorphus duplicatus, sp. n.

Rufo-testaceus, elytris flavo-testaceis, rufo-marginatis, singulis maculis 8 brunneis, per paria digestis, 4 mediis plus minusve coalitis. L. 3½ lin.

Amazons (Bates).

### Scaphidomorphus barytopoides, sp. n.

Niger, ore abdomineque testaceis, elytris flavis macula communi pone scutellum, apice, singulisque punctis 8 nigris (1 basali, 1 humerali, 1 pone macula communi, 4 transverse positis pone medium). L. 3½ lin.

Amazons (Bates).

### Scaphidomorphus varicollis, sp. n.

Rufo-testaceus, prosterno pedibusque nigris; capite puncto nigro, thorace nigro, macula biloba ante scutellum, lineaque irregulari laterali rufo-testaceis; scutello nigro; elytris flavis, fasciis 2 angustis flexuosis communibus extus abbreviatis, singulo punctis 6, apiceque nigris; (punctis 2 basalibus, 2 in margine, 2 inter fasciam secundam et maculam apicalem). L. 3\frac{1}{4} lin.

Amazons (Bates). Epipleuræ yellow.

### Scaphidomorphus obliteratus.\*

Prepopharus obliteratus, Er. Arch. f. Nat. XIII. 178. Peru.

### Scaphidomorphus diffinis.

Prepopharus diffinis, Er. Arch. f. Nat. XIII. 178.

### Perithonius.

g. n. (typ. misolampoides, Lac.).

It is impossible to allow this curious species to remain in *Euphanistes*, with which it has only an external resemblance. The eyes are rather coarsely granulated; the clypeus emarginate; thorax hardly transverse, sides slightly rounded, with a basal line of deep punctures; elytra smooth, not margined at the base; metasternum with no coxal line, prosternum not keeled.

### Perithonius misolampoides.

Euphanistes misolampoides, Lac. Erot. 257. Columbia.

### Rhynchothonius.

g. n. (typ. albidoguttatus, Crotch).

The single species of this genus differs from all the genera of this section by the very long and narrow rostrum, the large prominent and oval eyes, the deflexed head, the narrow prosternum (the coxæ being approximated), the thorax wider than the elytra at the base, and the short anterior tarsi (joints 1—2 equal).

# Rhynchothonius albidoguttatus, sp. n.

Fusco-testaceus, ovatus, postice angustior, subtus rufo-testaceus; alutaceus, nitidus, obsolete punctatus, elytris punctato-striatis, singulis maculis 2 albidis (1 basali, 1 subapicali). L. 3 lin.

Amazons (Bates).

The spots vary slightly in size.

#### Priotelus.

(Hope) Lac. Erot. 493 (typ. 8-maculata, Oliv.).

I think this genus has been strained a little to bring in P. lividus and above all P. jucundus, but short of creating new genera for them there is nothing else to be done. It is distinguished by its slender antenna, and pale colour with darker markings. The males have the pilose dot on the first ventral segment. The elytra are very slightly pilose near the apex.

#### A. Elytris postice serratis.

#### Priotelus octomaculatus.

Erotylus 8-maculatus, Oliv. E. M. vi. 436 (1791). Priotelus ——, Lac. Erot. 500.

Cavenne.

Thorax transverse, base truncate, with a punctate fovea on each side; elytra with the margin broadly reflexed, with a punctate stria along it.

### Priotelus Dejeani.\*

Priotelus Dejeanii, Lac. Erot. 501.

Cayenne.

Very close to P. 8-maculatus, differs by the black head, and the spots on the elytra more or less connected.

# Priotelus orphanus, sp. n.

P. 8-maculato valde affinis, sed thorace breviore, elytris maculis minoribus, secunda tertiaque haud quadratis, margine apicali serrato, angulo suturali haud producto, distinctus videtur. L. 4—5 lin.

Amazons (Bates).

### Priotelus sex-maculatus, sp. n.

P.8-maculato proximus, macula humerali nulla, secunda parva, intus obliqua, tertia pone medium, angusta transversa, quarta apicali. L. 4 lin.

Amazons (Bates).

The apex of the elytra is irregularly serrate, the sutural angle produced.

B. Elytris postice excavato-truncatis.

### Priotelus tigrinipennis.

Priotelus tigrinipennis, Lac. Erot. 499.

N. Granada, Venezuela.

Elytra with seven striæ and reflexed margin, thorax with the base punctate on each side.

# Priotelus transversofasciatus, sp. n.

P. tigripenni affinis, sed minor, elytris maculis magis transversis, macula subapicali rotundata juxta-suturali, fascia ultima transversa, haud obliqua. L. 3\;\text{\frac{1}{2}}\)—4 lin.

N. Granada.

The markings are closer and larger than in P. tigrinipennis.

### Priotelus detrahens, sp. n.

P. tigrinipenni similis, sed thorace antice profundius emarginato, lateribus rotundatis, basi truncato haud punctato, elytris obsolete punctato-striatis, apice recte truncatis, angulo suturali haud producto, facile distinguendus. L.  $4\frac{1}{2}$ —5 lin.

Amazons (Bates), Ecuador (Buckley).

The spots converge towards the suture, the last fascia consisting of 2 spots placed obliquely.

### Priotelus macasensis, sp. n.

P. tigrinipenni affinis, sed major, parallelus, thorace toto punctulato, elytris lituris aterrimis, transversis, rectis, apice excavato truncato, angulo suturali haud producto, femoribus apice late nigris. L.  $5\frac{1}{3}$  lin.

Ecuador (Buckley).

#### Priotelus truncatus.

Priotelus truncatus, Lac. Erot. 499. Cayenne.

# Priotelus ignobilis.\*

Priotelus ignobilis, Kirsch, B. E. Z. 1865, 102. Bogota. This is probably a pale variety of P. truncatus.

### Priotelus obsoletus, sp. n.

Rufo-testaceus, oblongus, antennis (basi excepta) tibiisque nigris; thorace antice angustato, semicirculariter emarginato, lateribus rotundatis, basin versus punctulato; elytris punctatostriatis (striis 7), interstitiis vix punctulatis, lateribus crebre evidenter punctulatis. L. 5½ lin.

Brazil.

The elytra are obliquely truncate, the external angle acute.

### Priotelus debilis, sp. n.

Ovatus, pallide ochraceus, antennis (basi excepta) tibiarumque basi nigris; thorace lateribus rotundatis, angulis posticis acutis, supra punctulato, basi ante scutellum rotundato producto; elytris punctato-striatis (striis 5), lateribus confuse crebreque punctatis, fasciis 2 (1 interrupta paulo ante medium, 1 latiore infra medium) obsolete fuscis. L. 4½—5 lin.

Amazons (Bates).

Elytra truncate, external angle acute.

Var. elytris unicoloribus.

#### Priotelus stellio.\*

Priotelus stellio, E. Arch. f. Nat. XIII. 177. Peru.

C. Elytris integris.

# Priotelus apiatus.

Erotylus apiatus, Chev. Col. Mex. 11. 5. Priotelus ——, Lac. Erot. 428.

Mexico

Lacordaire gives "Columbia" as its patria, but, I think, incorrectly.

# Priotelus equestris.

Priotelus equestris, Lac. Erot. 495.

Cayenne (Lacordaire).

Var. amazonicus. Elytris striis subgemellatis, tibiis dimidio apicali testaceis.

Amazons (Bates).

#### Priotelus lividus.

Priotelus lividus, Lac. Erot. 496. Brazil

#### Priotelus calceatus.\*

Priotelus calceatus, Lac. Erot. 496. Cayenne.

#### Priotelus femoralis.

Bacis femoralis, Kirsch, B. E. Z. 1865, 102. Bogota, Venezuela. ♂ puncto piligero ventrali.

This is "P. nigrocalceatus," Chev. MS.

# Priotelus limbatus, sp. n.

Late ovatus, subdepressus, niger, nitidus, antennis articulis 1-2 testaceis; capite thoraceque brunneis, hoc transverso, angulis anticis acutis, lateribus fere rectis, basi utrinque paulo obliquo, punctato, ante scutellum nigro; elytris brunneis, undique anguste ochraceo-limbatis, punctato-striatis (striis subgemellatis) apice producto rotundato; epipleuris ochraceis; corpore subtus punctulato, prosterno obscure rufo. L.  $5\frac{1}{2}$  lin.

Guayaquil.

The prosternum is compressed at the anterior margin.

### Priotelus jucundus.

Priotelus jucundus, Lac. Erot. 497.

Cavenne.

Altogether unlike the other species; the strice are almost gemellate.

### Priotelus Spinolæ.

Omoitelus Spinolæ, Guér. Icon. R. A. Ins. 312 (1846). Columbia.

# Priotelus difficilis, sp. n.

Ovatus, rufo testaceus, antennis (basi excepta) tibiis tarsisque nigris; thorace sublævi, antice semicirculariter emarginato, lateribus rotundatis, basi utrinque sinuatis, ante scutellum elongatum producto; elytris striato-punctatis (striis 7), interstitiis punctis raris; corpore subtus vix punctulato; prosterno compresso antice elevato. L.  $4\frac{1}{4}$  lin.

N. Granada.

3 without piligerous dot.

### Priotelus ovatus, sp. n.

Ovatus, postice angustior, pallide ochraceus capite, parce punctato, antennis nigris (articulis 1—2 testaceis); thorace parce punctato, lateribus rotundatis, basi utrinque oblique truncato, antice posticeque margine in medio nigro-tincto; scutello nigro, elytris subgemellato-punctato-striatis (striis 7), interstitiis punctulatis, lituris cuneiformibus transversis 13 obscure nigris. L. 3½ lin.

Amazons (Bates).

This has very much the shape of *Tapinotarsus*, the posterior tarsi are elongate, the basal joint equal to the rest; the prosternum is compressed almost carinate in front; the thoracic epipleuræ uneven behind.

#### Priotelus irroratus.

Brachysphænus irroratus, Lac. Erot. 331. Cayenne.

# Priotelus minor, sp. n.

Ovatus, ochraceus, antennis plus minusve scutelloque nigris; thorace brevi, lateribus rotundatis, æquali, obsolete vage punctulatis; elytris punctato-striatis (striis 7 et marginali) vix gemellatis, interstitiis vix punctulatis; maculis oblongis fuscis inter strias (3 basalibus, oblique positis, 1 sub humeris, 3 mediis in triangulo, 4 subapicahbus). L $2\frac{3}{4}$ lin.

Amazons (Bates).

Very like Brach'ysphænus detritus: prosternum compressed in front.

### Priotelus habrodactyloides, sp. n.

 $P.\ minori$  affinis sed aliter signatus; elytris maculis 2 basalibus, annulo communi maculis 8 formato, macula oblonga laterali, quatuorque subapicalibus, fuscis. L.  $2\frac{1}{2}$  lin.

Amazons (Bates).

### Priotelus nitidior, sp. n.

 $P.\ minori$  affinis, sed nitidior, clytris obsoletius puncto-striatis striis minus gemellatis, maculis 2 basalibus, annulo communi, punctisque 3 apicalibus fuscis; thorace nigro signato. L.  $2\frac{1}{2}$  lin.

Amazons (Bates).

Near P. habrodactyloides by the markings, but very distinct by the faint striæ.

### Priotelus lineatulus, sp. n.

Sat late ovatus, testaceus, antennis (basi excepta) nigris; thorace acquali, transverso, lateribus rotundatis, obsolete punctulato, antice angustato; elytris punctato-striatis (striis 7, gemellatis), pallide ochraceis, vittis 3 fuscis apice intus curvatis, lituraque parva subscutellari. L. 3½ lin.

Amazons (Bates).

Allied to *P. minor*, prosternum compressed in front, anterior legs short, inner edge of elytral epipleuræ margined with black. In this species the pairs of striæ are 1—2, 3—4, 5—6 instead of 2—3, 4—5, as usual.

### Priotelus rugithorax, sp. n.

Ovatus, subconvexus, croceus; tibiis nigris; thorace æquali, subtransverso, fortiter subrugose punctato, basi fere truncato, ante scutellum paulo producto; elytris ochraceis, punctato-striatis (striis 7) interstitiis lateribusque crebre fortius punctatis, corpore subtrus vix punctulato, prosterno antice compresso. L. 44 lin.

Amazons (Bates).

Very distinct by the punctuation.

#### Priotelus festivus.

Brachysphænus festivus, Lac. Erot. 332. Mexico.

### Tapinotarsus.

Kirsch, B. E. Z. 1865, 100 (typ. maculatus, Kirsch).

I have not seen the type, but a specimen from the Amazons obviously belongs to this genus. The principal characters are the short anterior femora, and narrow third joint to the tarsi, the posterior tarsi also have the first joint extremely elongate. It is very near the small *Prioteli*, *P. minor* etc.; but the punctuation, though hardly a generic character, may serve to separate it; there are no striæ, but the black markings are surrounded each by a ring of punctures.

### Tapinotarsus maculatus.\*

Tapinotarsus maculatus, Kirsch, B. E. Z. 1865, 101. Bogota.

### Tapinotarsus multinotatus.

Brachysphænus multinotatus, Lac. Erot. 330. Cayenne.

This is evidently very nearly allied to and congeneric with *T. Kirschii*, but even the sutural stria is obsolete.

# Tapinotarsus Kirschii, sp. n.

Ovatus, convexus, rufo-testaceus, thorace nitido, parce punctulato, basi in medio nigro: elytris ochraceis nigro signatis, sutura rufo-testacea, stria suturali integra, lituris transversis 15 nigris, punctis cingulatis. L.  $3\frac{1}{2}$  lin.

Amazons (Bates).

The markings are very like those of Priot, tigrinipennis.

### Tapinotarsus? brachymeroides, sp. n.

Oblongo-ovatus, niger, capite abdomine elytrisque rufo-brunneis; thorace brevi, sat lato, punctulato, basi vix sinuato, elytris dorso punctato-striatis, lateribus punctorum seriebus ovatis 5 signatis. L.  $3-3\frac{1}{4}$  lin.

Amazons (Bates).

The coloration is exactly that of *Brachysphænus fulvifrons*, from which it differs by the rostrum and smaller thorax; the punctuation is very curious and is evidently allied to that of *P. maculatus*.

#### Bacis.

(Chevrolat) Lac. Erot. 502 (typ. 3-punctatus, Dup.).

This genus is difficult to define; it has the gemellate punctuation and marginal stria of *Priotelus*, from which it differs by its broadly ovate form, and by the structure of the prosternum which is produced on either side from the coxæ in a straight line towards the margin, the epipleuræ in front being narrow, and concave, while in *Priotelus* the suture goes from the coxæ straight to the anterior margin and the epipleuræ and prosternum are on one plane.

### Bacis tripunctatus.

Erotylus tripunctatus, Dup. Erot. 36, T. III. f. 71.
Bucis \_\_\_\_\_, Lac. Erot. 503.
Cayenne.

### Bacis scutellaris.

Bacis scutellaris, Lac. Erot. 504.
— ambiguus, Lac. Erot. 505.

Cavenne.

B. ambiguus differs only in having the scutellum pale.

### Bacis immaculicollis, sp. n.

Breviter ovatus, testaceus, elytris pallidis, scutello antennarum clava, tibiis femoribusque extus nigro-fuscis; thorace transverso lævi, antice angustato, lateribus subrectis; elytris explanato marginatis, fortius vix crebre punctatis, striis 5 gemellatis (2—3, 4—5). L.  $3\frac{1}{2}$  lin.

Amazons (Bates).

### Bacis nigropictus, sp. n.

Breviter ovatus, rufo-testaceus, nitidus, antennis pedibusque, femoribus basi excepta, nigris; capite macula verticali nigro; thorace transverso, sublevi, basi punctis majoribus paucis, nigro, macula utrinque disci rufo-testacea; elytris ochraceis, stria marginali, suturali, quatuorque dorsalibus gemellatis, lateribus confuse punctatis, tenue nigro limbatis, margine maculis 3 (1 subhumerali, 1 in medio, 1 infra medium), sutura, fasciis 2 extus abbreviatis communibus (1 ante, 1 pone medium) punctoque apicali nigris. L.  $3\frac{1}{2}$ —4 lin.

Ψ̃enezuela.

### Phricobacis.

### g. n. (typ. Batesii, Crotch).

This genus differs from *Bacis* by its large size and oblong form, close rugulose punctuation and different structure of the prosternum. This is intermediate to some extent between *Bacis* and *Priotelus*, the side pieces are on the same plane, but the prosternum extends widely to right and left of the coxe.

### Phricobacis Hopii.

Erotylus Hopei, Guér. R. Z. 1841, 115.

Rolivia

My specimen has the rostrum very decidedly narrowed. 3 puncto ventrali piligero.

#### Phricobacis arduus.

Bacis arduus, Er. Arch. f. Nat. XIII. 177.

hepaticus, Kirsch, MS.

Rufo-testaceus, oblongus, thoracis punctis 8 (4 discoidalibus 4 ante basin), antennis (basi excepta) tibiisque nigris, elytris sutura margineque flavo-ochraceis; capite parce punctato, fronte impresso; thorace antice semicirculariter emarginato, basi utrinque sinuato, cum lateribus fortius punctato, disco obsolete punctato, subcanaliculato; scutello elongato, lævi; elytris confertim rugoso-punctatis; subtus paulo dilutiore, punctulato, prosterno medio impresso. L.  $4\frac{1}{2}-5\frac{1}{2}$  lin.

Peru (Erichson), Amazons (Bates).

3 puncto ventrali piligero.

The black dots on the thorax vary, some being absent occasionally; the Amazon specimens are of an olive brown, with pale ochreous thorax, probably arising from discoloration or immaturity.

Traces of gemellate punctuation are visible in some examples. The disc of the thorax has the appearance of having been sulcate and since filled up.

Var. tibiis apice flavis. (Amazons).

### Phricobacis Batesii, sp. n.

Rufo-testaceus, oblongus, antennis (basi excepta) tibiis tarsisque nigris, elytris pallide ochraceis; thorace subæquali punctulato, basi punctis paucis majoribus; elytris confertim punctatis, obsolete geminato-punctatis; subtus rufo-testaceus, punctulatus. L.  $5\frac{1}{2}$ — $6\frac{1}{4}$  lin.

Amazons (Bates).

ð puncto ventrali piligero.

### Phricobacis pulcher, sp. n.

Rufo-testaceus, oblongus, antennis brevioribus (basi excepta) tibiis (apice rufo) tarsisque nigris; thorace elytrisque læte viridibus (post mortem ochraceis) maculis rufo-piceis; illo subæquali, punctulato, lateribus valde rotundatis, punctis 8 rufo-brunneis (4 discoidalibus, antice concavis, 4 sub-basalibus); elytris fortius minus confertim subrugose punctatis, dorso subgeminatis, singulo maculis 9 rufo-brunneis; 1 sub-humerali, 1 obliqua majore, prope scutellum, 1 discoidali sat magna ante medium, 3 mediis (2 externis fere junctis, interno majore elongato subsuturali), 1 parvo discoidali, 2 approximatis subapicalibus. L. 5½—6 lin.

Amazons (Bates).

3 puncto ventrali piligero.

# Phricobacis Ratzeburgii.\*

Erotylus Ratzeburgii, Lac. Erot. 449. Brazil.

### Phricobacis marginatus.\*

Omoiotelus marginatus, Guér. R. Z. 1841, 119. Bacis — , Lac. Erot. 505. Bolivia.

# Phricobacis rufolimbatus, sp. n.

Oblongus, fortiter convexus, niger, subnitidus, capite antice, elytrorum epipleuris margine externo suturaque læte rufis; thorace inæquali, undique punctato, lateribus rotundatis, basi utrinque sinuato; elytris fortiter subrugose dorso subseriatim punctatis, apice obscure rufo; abdomine subtus punctulato, prosterno margine antico elevato in medio. L. 7 lin.

Amazons (Bates).

#### Phricobacis navicularis.

Omoiotelus navicularis, Lac. Erot. 512.

This species is not altogether appropriately placed here, but it is evidently not an Homocotelus.

#### Homeotelus.

Hope, R. Z. 1841, 112-scripsit "Omoiotelus" (typ. testaceus, Fab.).

A. Elytris confertim rugoso-punctatis.

#### Homeotelus testaceus.

Erotylus testaceus, Fab. Syst. Ent. Ap. 822 (1775). Omoiotelus ---- , Lac. Erot. 508.

Brazil, Minas Geraes.

3 puncto ventrali piligero.

#### Homœotelus confusus.

Homocotelus confusus, Crotch, Cist. Ent. 150. Nicaragua (Janson).

### Homœotelus d'Orbignyi.

Omoiotelus d'Orbignyi, Guér, R. Z. 1841, 119. ---- testaceus var., Lac. Erot. 509.

Peru, N. Granada, Amazons.

Lacordaire gives this as a variety of H. testaceus, but it seems to me very distinct. All the large specimens I have seen pertain to this, and the femora are never infuscate.

### Homœotelus Duponchelii.

Omoiotelus Duponchelii, Lac. Erot. 507.

Brazil, Minas Geraes,

Differs from H. Orbignyanus in colour only.

## Homœotelus Orbignyanus.

Omoiotelus Orbignyanus, Lac. Erot. 510.

Bolivia, Amazons (Bates).

Very near H. Duponchelii.

### Homeotelus umbonatus.

Omoiotelus umbonatus, Lac. Erot. 510.

trimaculatus, Kirsch, B. E. Z. 1865, 102.

Columbia, Bogota (Janson, Kirsch).

O. trimaculatus, Kirsch, appears to me nothing more than a mature dark-coloured umbonatus.

### Homœotelus distinguendus, sp. n.

H. umbonato peraffinis, sed paulo convexior, antice posticeque magis angustatus, thorace maculis 3 fuscis obsoletis, elytris magis regulariter punctatis, tibiis dimidio apicali testaceis. L. 5 lin.

Amazons (Bates).

Near H. pallidus by its tibiæ, but differing by punctuation and the broad ill-defined marks on the thorax.

### Homœotelus hepaticus, sp. n.

*H. umbonato* proximus, sed antennis articulo ultimo læte flavo distinctus videtur. L.  $4\frac{1}{2}$ —5 lin.

Ecuador (Buckley).

Var. a, thoracis macula media divisa.

### Homœotelus octomaculatus, sp. n.\*

Omoiotelus 8-maculatus, Kirsch, MS.

*H. hepatico* simillimus, sed thorace seriebus duabus transversis punctorum quatuor. L.  $4\frac{1}{2}$  lin.

Pozuza (Kirsch).

This is probably a variety with the vittæ divided transversely.

#### Homœotelus terminalis.\*

Homwotelus terminalis, Er. Arch. f. Nat. XIII. 177. Peru.

### Homœotelus pallidus.

Erotylus pallidus, Oliv. E. M. vi. 436 (1791). Omoiotelus ——, Lac. Erot. 511.

Cayenne.

More rugulose than H. umbonatus.

### Homœotelus apicicornis.

N. Granada.

Readily recognized by the truncate elytra.

### Homœotelus vitiosus, sp. n.

H. apicicorni proximus, sed minor, elytris apice integris, sat regulariter punctato-striatis, interstitiis crebre fortiter punctatis, antennis brevioribus certe distinctus. L. 4 lin.

Amazons (Bates).

### Homœotelus prioteloides, sp. n.

Ovatus, antice acuminatus, testaceus, scutello antennis (basi excepta) tibiis tarsisque nigris; thorace lateribus rectis, subrugoso, vitta discoidali nigro-picea; elytris fuscis confertim rugoso-punctatis, sublineatis, undique anguste flavo-limbatis. L. 5 ½ lin.

Amazons (Bates).

The antennæ are shorter than usual.

### Homœotelus spinifer.

Omoiotelus spinifer, Thoms. Arch. Ent. 1. 310. Amazons (Bates).

This species varies considerably in size.

# Homœotelus rugosus, sp. n.

Late ovatus, antice posticeque acuminatus, fortiter convexus, nigro-piceus; capite antice elytrorum margine suturaque, epipleuris externe late rubris; thorace punctato, lateribus rectis, angulis anticis acutis productis; elytris fortius confertim rugosis; corpore subtus punctulato. L.  $7\frac{1}{2}$ —8 lin.

Amazons (Bates).

This has exactly the colouring and sculpture of *Phricobacis* rufolimbatus.

Elytris gemellato-striatis.

# Homœotelus gemellatus.

Omoiotelus gemellatus, Lac. Erot. 513.

Columbia.

This closely resembles Bacis in form and colour.

The tibiæ have the apical third testaceous.

# Homœotelus mexicanus, sp. n.

II. gemellato affinis, sed postice minus acuminatus, magis depressus, obsoletius punctato-striatus, interstitiis obsolete punctulatis, tibiisque nigris sat distinctus. L.  $4-4\frac{1}{9}$  lin.

Mexico (Sallé).

Lacordaire has united this with II. gemellatus.

### Homœotelus Jansoni.

Homœotelus Jansoni, Crotch, Cist. Ent. 150. Nicaragua (Janson).

### Homœotelus crocicollis.

Omoiotelus crocicollis, Lac. Erot. 514. N. Granada

### Homœotelus albidipennis, sp. n.

 $H.\ crocicolli$  valde affinis, sed minus rotundatus, thorace nitidiore, vitta discoidali nigra basi dilatata, elytris albidis, punctis impressis nigris. L.  $5--5\frac{1}{2}$  lin.

Ecuador (Buckley).

### C. Elytris lævibus.

### Homœotelus signaticollis.

Erotylus signaticollis, Dup. Erot. 35, T. III. f. 66. Omoiotelus ———, Lac. Erot. 514.

Brazil.

This ought probably to form a new genus; it has some resemblance to Eurycardius.

### Subfamily 3. Helotides.

#### Helota.

Macleay, Ann. Jav. 42, 1825 (typ. Vigorsii, Macleay).

### Helota Vigorsii.

Helota Vigorsii, Macl. Ann. Jav. 43, T. 1. f. 9 (1825). Java, Malacca, India.

### Helota Servillei.\*

Helota Servillei, Hope, Col. Man. III. 187, T. III. f. 4 (1840). Poonah, Bengal.

# Helota gemmata.\*

Helota gemmata, Gorham, Tr. E. S. Lond. 1874, 448. Shanghai, Japan.

### Helota Mellii.\*

Helota Mellii, Westw. Cab. Or. Ent. 86, T. XLI. f. 8 (1848). India.

### Helota Guerinii.\*

Helota Guerinii, Hope, Col. Man. 111. 188 (1840). India, Travancore, Birma, Bombay.

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## ERRATA ET CORRIGENDA.

FOR

36	18 from bottom,	aulachochiloides	aulacochiloides.
37	7 from top,	phillipinarum	philippinarum.
42	10 from bottom,	Subfamily 3	Tribe 2.
89	4 from bottom,	elevata	clavata.
91	2 and $3$ from top	hæmastoma	hæmatosoma.
103	14 from top	Subfamily 4	Tribe 4.
**	after Micrenca	ustes liturata insert	
	Mi	crencaustes Dehaan	ii.

Engis Dehaanii, Lap. Hist, Nat. Col. II. 15.

Encaustes - , Lac. Erot. 43. Java.

7 and 9 from top Brachysomus 109 Brachysphænus. 156

after Erotylus scaphidomorphoides insert Erotylus spectrum.

Erotylus spectrum, Thoms. Rev. et Mag. de Zool. 1856, 476. T 23 f. 7.

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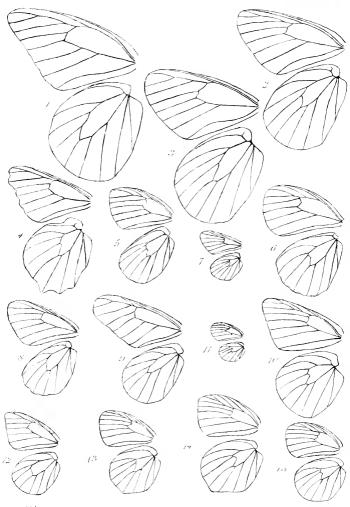
## ERRATA.

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Page 16, line 20 from bottom, for "refescentes," read "rufescentes,"
                                  .. " Danane," read " Danaus."
      60,
                                  .. "ERYCINIDÆ," read "ERYCININÆ."
.. "nigra," read "nigro."
      79.
                9
                        top.
      82.
              11
                        bottom, between "apicalibus" and "flavis," insert
      ••
                                    "nigris, punctis tribus apicalibus,"
      83, transpose 3 and ♀ signs in description of "Dismorphia viridi-
                                   fuscia.
     102, line 11 from bottom, for "vena minternum," read "venam
                                             internam.
                                         "( of R. Medon)," read "( & of
     159,
                          top.
                                              R. Medon.)
                                         " P, Capenas," read " E, Capenas,"
     160,
                19
     164.
                          bottom, and
                 4
     165.
                 3
                          top, for "A. Niobe," read "A. Niphe."
                          bottom, for " Hagluadi," read " Haglundi."
     187.
                 4
                     ٠,
    244.
                14
                          top, for "Teracolus chrysomelis, n. sp.," read
                                    "Teracolus pleione, Klug."
"Fabrican," read "Fabrician."
"Urania R.," read "Urania F."
"Amphielus," read "Amphielus."
    343,
                18
    344.
                 1
                 3
            ٠.
      ,.
                           ٠,
                                   " Argyries," read " Argyrios,"
           lines 12 and 15 from top, read "Menætius."
          line 22 from top, after "Dalman's," insert " .E."
          ., 22 ,, bottom, for "Brarmani," read "Brannani,"
     345,
                                 .. " Lemata," read " Lunata,"
            ., 10 ..
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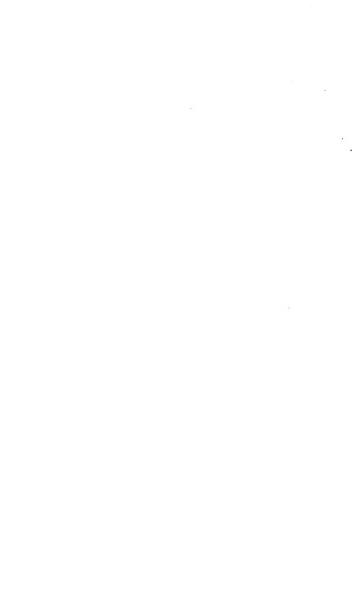
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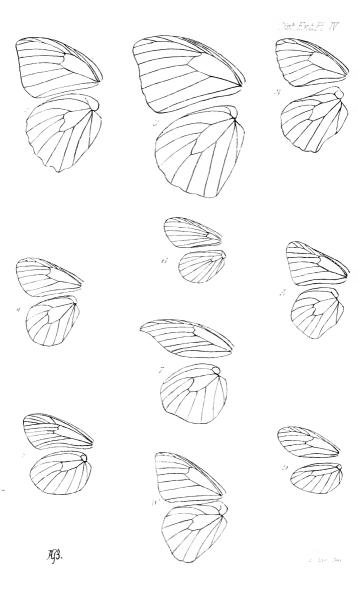
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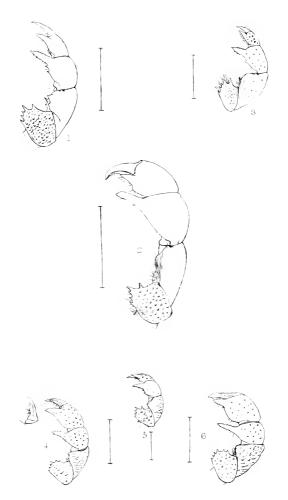








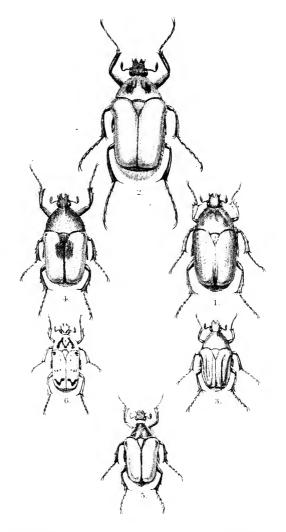




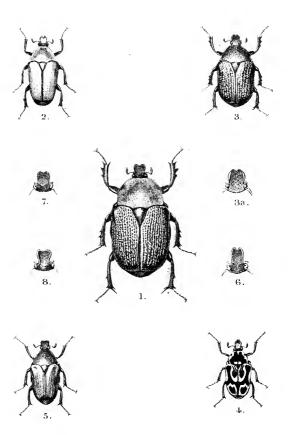
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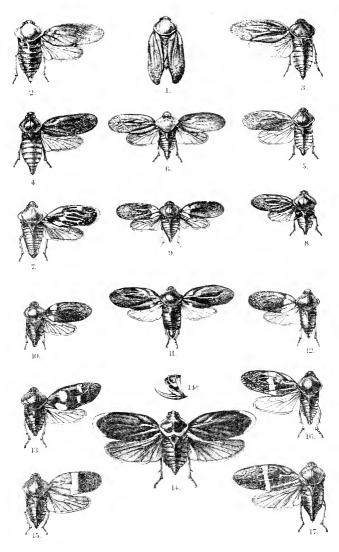












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# tist Ent. Pl. IX.

